



# Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for RANE AP 13. You'll find the answers to all your questions on the RANE AP 13 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual RANE AP 13  
User guide RANE AP 13  
Operating instructions RANE AP 13  
Instructions for use RANE AP 13  
Instruction manual RANE AP 13

## RANE OPERATORS MANUAL AP 13 ACOUSTIC PROCESSOR



### QUICK START

The AP 13 accommodates the signals from two pickups from any acoustic instrument, where the pickups are wired to the tip and ring of a standard stereo 1/4" TRS (Tip, Ring, Sleeve) plug. You do not need internal preamps when using the AP 13. Phantom power voltage is available for electret and other condenser mic pickups. It is assumed one pickup is a piezo-type while the other is some type of microphone.

1. Slide the Input Wiring switch to the correct position agreeing with your pickup wiring situation.
2. If your mic pickup requires Phantom Power, select it using the switch on the AP 13 rear. Make sure the appropriate LED lights by the INPUT jack.
3. Turn the MAIN OUT LEVEL controls down.
4. Connect the AP 13 to your amplifier using the 1/4" MAIN OUTPUTS or use the HEADPHONE jack.
5. Initially, turn the PIEZO and MIC PICKUP GAIN TRIM controls half way up.
6. Move each LOW CUT slider to the top (15 Hz); center all EQ sliders; center the PAN sliders; leave the INVERT pushbuttons out; and position the LEVEL sliders to "4".
7. Plug your instrument into the INPUT jack on the front of the AP 13 with a stereo 1/4" TRS cable.
8. Power up the AP 13, then turn on your amplifier.
9. Play your instrument and slowly turn up the MAIN OUT LEVEL controls. You should hear sound from your speakers.

If not, recheck all settings and wiring, and read the next few pages.  
*Never connect anything except an approved Rane power supply to the red thing that looks like a telephone jack on the rear of the unit. This is an AC input and requires special attention if you do not have a power supply exactly like the one originally packed with your unit. See the full explanation of the power supply requirements elsewhere in this manual.*

WEAR PARTS: This product contains no wear parts.

Manual-1



[You're reading an excerpt. Click here to read official RANE AP 13 user guide](#)

<http://yourpdfguides.com/dref/3395156>

### Manual abstract:

You do not need internal preamps when using the AP 13. Phantom power voltage is available for electret and other condenser mic pickups. It is assumed one pickup is a piezo-type while the other is some type of microphone. 1. Slide the Input Wiring switch to the correct position agreeing with your pickup wiring situation. 2. If your mic pickup requires Phantom Power, select it using the switch on the AP 13 rear. Make sure the appropriate LED lights by the INPUT jack. 3. Turn the MAIN OUT LEVEL controls down.

4. Connect the AP 13 to your amplifier using the 1/4" MAIN OUTPUTS or use the HEADPHONE jack. 5. Initially, turn the PIEZO and MIC PICKUP GAIN TRIM controls half way up. 6.

Move each LOW CUT slider to the top (15 Hz); center all EQ sliders; center the PAN sliders; leave the INVERT pushbuttons out; and position the LEVEL sliders to "4" 7. Plug your instrument into the INPUT jack on the front of the AP 13 with a stereo 1/4" TRS cable. 8. Power up the AP 13, then turn on your amplifier. 9.

Play your instrument and slowly turn up the MAIN OUT LEVEL controls. You should hear sound from your speakers. If not, recheck all settings and wiring, and read the next few pages. Never connect anything except an approved Rane power supply to the red thing that looks like a telephone jack on the rear of the unit. @@@@Useful in monitoring pickup level and initially in setting PICKUP GAIN TRIM controls. These indicators light approximately 4 dB before actual clipping, so occasional flickering is okay, but they should never be allowed to light steadily. PHANTOM POWER indicators: are either Off=no

Phantom Power; Yellow=+15 VDC Phantom Power; or Green=+6 VDC Phantom Power. Input wiring switch: allows choice of Input wiring. Either TIP=PIEZO and RING=MIC, or vice-versa. Proper setup requires careful selection--if in doubt, consult the technician that wired your instrument for the correct choice.

Input PICKUP GAIN TRIMS: set the proper Gain for each pickup. Range is from 6 dB minimum to 60 dB maximum. PICKUP INVERT switches: Invert the polarity (phase) of the piezo pickup with respect to the mic pickup. Either MIC or PIEZO PICKUPS may be individually Inverted. LOW CUT frequency: adjusts the corner frequency of the LOW CUT (high-pass) filter from 15 Hz to 250 Hz. Use to reduce unwanted low frequencies in either MIC or PIEZO PICKUPS. 7-band graphic equalizer boost/cut controls: Seven sliders that control the amount of boost/cut for each of the indicated bands in both MIC and PIEZO sections. A grounded center detent guarantees flat response for filters not used. PIEZO PICKUP output LEVEL: adjusts the Level of the PIEZO OUTPUT jack. Located post-LEVEL and pre-PAN, so it is dependent on the position of the PIEZO PICKUP LEVEL control and independent of the PIEZO PAN control.

PAN control: Separate controls for both PIEZO and MIC PICKUP sections allow routing the signal anywhere from A-only to B-only at the Main Output. LEVEL controls: Separate PIEZO and MIC LEVEL controls the overall Level of each signal. SEND A/B controls: adjust the amount of signal at each of the SEND jacks. RETURN control: is a "stereo" Return. Controls the amount of A and B entering the RETURN jacks.

MAIN OUT MUTE button: Mutes both A and B Main Outputs. Does not affect the Headphone Output. The red LED indicates a Muted output. MAIN OUT A & B LEVELS: Concentric controls used to separately set the Main A & B Output Levels. MAIN OUT OVERLOAD indicator: monitors both A and B Main Outputs.

An overload condition (within 4dB of clipping) on either Channel causes this red LED to light. HEADPHONE LEVEL: controls the volume of the HEADPHONE Output jack. POWER indicator: glows yellow when the proper power supply is connected and powered. Headphone jack: Accepts standard stereo headphones rated from 32-600 ohms equipped with a 1/4" TRS plug. AKG Micro-Mic Users The Phantom Power requirement for these mics demands a minor modification to the inside of the AP 13. Remove the top and bottom covers and replace R220 with a 15k ohm resistor (see layout on the back page). Once modified with the new resistor, the input will not be compatible with other mics. Manual-2 REAR PANEL DESCRIPTION MAIN OUTPUTS--MIC-level:

Two XLR connectors used as a direct feed to mixing console mic inputs. Pin 2 is "+" positive, pin 3 is "-" negative, and pin 1 is signal ground.

@@@@@Mono expansion is done using only the EXPAND IN A jack.

@@@These jacks also provide an auxiliary input path. @@@@Mono signals use only the RETURN A jack. @@@@Mono effects units should wire only to the SEND A jack. @@@@For convenience, the tuner may be left connected during performances. @@Normally, this switch should be in the "grounded" position. @@@@The power requirements call for an 18 VAC center-tapped transformer. This is not a telephone jack. @@@@Front panel LEDs indicate one of the three positions of this switch. @@See CHASSIS GROUNDING below. CHASSIS GROUNDING NOTE If after hooking up your system it exhibits excessive hum or buzzing, there is an incompatibility in the grounding configuration between units somewhere.

Here are some things to try: 1. Try combinations of lifting grounds on units that are supplied with ground lift switches or links. 2. If your equipment is in a rack, verify that all chassis are tied to a good earth ground, either through the line cord grounding pin or the rack screws to another grounded chassis. 3.

Units with outboard power supplies do not ground their chassis through the line cord. Make sure that these units are grounded either to another chassis which is earth grounded (such as the amplifier), or directly to the grounding screw on an AC outlet cover. Please refer to RaneNote 110, "Sound System Interconnection" (included in this manual) for further information on system grounding. Manual-3 OPERATING INSTRUCTIONS OPTIMIZING PICKUP GAIN CONTROLS The Gain of each pickup input is adjusted via recessed PICKUP GAIN TRIM controls on the front of the AP 13. Unity Gain is located at approximately 9:00.

To set the Gain use a screw driver, guitar pick, or other suitable tool to turn the GAIN TRIM clockwise until a very strong input signal (e.g. strumming a loud chord) causes the overload LED to flicker occasionally. For extra headroom, turn the GAIN TRIM slightly counterclockwise. SETTING UP EACH PICKUP

Start by turning one of the LEVEL controls to off or "0". Now play your instrument and use the LOW CUT filter and EQ sliders to adjust for the desired timbre. (Try rolling off the low end of the MIC for presence, and roll off the high end of the PIEZO to reinforce the sound without shrillness.) Turn this Channel's LEVEL control off and repeat the procedure for the other pickup. When through, adjust both LEVEL controls for optimum loudness balance and use the PAN sliders to create a panoramic sound field between the A and B Outputs. If the sound seems weak or thin when both pickups are turned up, especially a noticeable loss of bass, try using one or the other of the INVERT pushbuttons.



[You're reading an excerpt. Click here to read official RANE AP 13 user guide](http://yourpdfguides.com/dref/3395156)

<http://yourpdfguides.com/dref/3395156>

This problem often occurs when pickups are out-of-phase and their outputs are canceling instead of combining. **EFFECTS LOOPS** Most often the SEND/RETURN loop is used for a reverb, while something more specialized like a compressor or multieffects processor fills the INSERT loop. Hook-up is simple: connect the SENDs to the inputs of the reverb and run the outputs back to the RETURN jacks. To send mono and return stereo, connect only the SEND A (MONO) jack to the input and return both outputs to the RETURN jacks; or to send and receive mono use just the A (MONO) SEND and RETURN jacks. The AP 13 splits and sums the mono input equally with the A and B Outputs. Adjust the SEND & RETURN sliders as necessary for correct levels. The INSERT loops are the single 1/4" send/return type where tip=send and ring=return. @@These are common enough, you shouldn't have to make them. There are no controls to worry about with this loop. SEND/RETURN vs.

@@@@@See Figure 1 to the right. Another effects tip: If you want to put one effect on just the mic, and a different effect on just the piezo, but you want a mono output, just pan everything hard left and right for stereo and push the MONO switch on the rear of the AP 13. **CONNECTING TWO GUITARS TO THE AP 13** A Y-cord can be used, as long as you don't try to run two piezo pickups. The impedance of a piezo won't work right in the MIC channel, but it won't hurt anything either. (Qualifier: If you have a piezo system that has active circuitry like a battery powered preamp, then run it into the MIC channel with the straight piezo in the PIEZO channel.

) **EXPAND JACKS** Signal entering the AP 13 through these jacks sums (postEQ and effects loops) with the internal signal. Mono signal applied to the A (MONO) EXPAND IN jack sums equally into Main A and B Outputs. **MAIN OUTPUTS** Two sets of Main Outputs exist. Both are fully balanced, both may be used at the same time. The 1/4" TRS jack operates at line-level and should be used to drive additional signal processing, your power ampl.



[You're reading an excerpt. Click here to read official RANE AP 13 user guide](http://yourpdfguides.com/dref/3395156)

<http://yourpdfguides.com/dref/3395156>