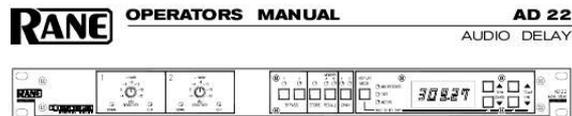




Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for RANE AD 22. You'll find the answers to all your questions on the RANE AD 22 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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QUICK START

Quickly look around to make sure no one catches you reading this. You're aware this is the *manual* aren't you? Wow! Most people only get about this far in a manual, but there are a few important things you should know about the AD 22. So please keep reading. These few points are summarized in this **CHIT** Note version of the manual.

ADJUSTING SENSITIVITY. First apply a signal with nominal input level and adjust the SENSITIVITY controls so the red CLIP LEDs just light, then back off so the LEDs do not turn on, even with high signal peaks.

SETTING DELAY. Now that the input signal is calibrated, press the CHAN button until the CHAN LEDs indicate the Channel you want to set. We cover the special case of adjusting *both* Channels simultaneously later (both CHAN LEDs on). Adjust the up/down buttons until the LED display shows the desired Delay. To adjust the Delay of the other Channel press the CHAN button until the other Channel's LED is lit, and adjust the Delay as before.

STORING DELAY. Press the STORE button (the STORE LED stops flashing). This stores the current Delay values into each Channel's current Memory (A or B). The current Memory for each Channel is indicated by the MEMORY LED lit when editing that Channel. Both Channel's current Delay values are stored with each press of the STORE button.

RECALLING DELAY. To recall a stored Memory, press RECALL. Each press of this button alternately recalls stored Memories (A then B then A...) for the selected Channel only.

A quick way to recall Memories into both Channels simultaneously, is to store both Channel's values into the same Memory. With *both* Channels selected (both CHAN LEDs on), press RECALL to restore *both* Channel's Memories at the same time.

SETTING TEMPERATURE. The AD 22 is factory set for 22°C/71.6°F. To change this, press and hold DISPLAY MODE and press one of the up/down buttons. Use the **fine** COARSE buttons for degrees Celsius or the **fine** FINE buttons for degrees Fahrenheit. The LED display shows the temperature setting. Further pressing of the up/down buttons adjusts the temperature setting. This temperature is used, with constant 30% humidity, to calculate the speed of sound for converting delay times into distance.

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.

Note: It is normal to hear harmless short bursts of stored data playback when recalling a memory. Also, powering up the AD 22 without input signal eliminates chirping that may occur when scrolling delay values.

AD 22 CONNECTION

When connecting the AD 22 to other components in your system for the first time, *leave the power supply for last.* This gives you a chance to make mistakes and correct them before any damage is done to your fragile speakers, headphones, ears, or brains. The AD 22 passes audio while it is unpowered by virtue of its fail safe bypass relays (when the AD 22 functions as a wire). *Turn the system volume down before plugging in the AD 22's power.*

INPUTS AND OUTPUTS

The AD 22's inputs are electronically balanced. The screw terminals accept #6 spade connectors. Stripped or tinned wire makes an unreliable union. Connect AD 22 shield

wires to the *signal ground* terminal, the *chassis ground* screw or *neither.* The AD 22's Outputs are balanced line drivers.

REMOTE RECALL TERMINALS

Each channel of the AD 22 has two nonvolatile Memories, "A" and "B". Connecting a switch between the GND and CH1 or CH2 terminals permits recalling the Memories remotely. Only a change in the switch position is sensed—when the switch closes, Memory B for the given Channel is recalled. When the switch opens, Memory A is recalled. Connecting the two Channel terminals (CH1 & CH2) together on one side of the same switch, permits stereo recall of Memories A and B.

WEAR PARTS: This product contains no wear parts.

Manual-1



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<http://yourpdfguides.com/dref/3395149>

Manual abstract:

You're aware this is the manual aren't you? Wow! Most people only get about this far in a manual, but there are a few important things you should know about the AD 22. So please keep reading. These few points are summarized in this Cliff Note version of the manual. **ADJUSTING SENSITIVITY.** First apply a signal with nominal input level and adjust the SENSITIVITY controls so the red CLIP LEDs just light, then back off so the LEDs do not turn on, even with high signal peaks. **SETTING DELAY.** Now that the input signal is calibrated, press the CHAN button until the CHAN LEDs indicate the Channel you want to set. We cover the special case of adjusting both Channels simultaneously later (both CHAN LEDs on). Adjust the up/down buttons until the LED display shows the desired Delay. To adjust the Delay of the other Channel press the CHAN button until the other Channel's LED is lit, and adjust the Delay as before. **STORING DELAY.** Press the STORE button (the STORE LED stops flashing). This stores the current Delay values into each Channel's current Memory (A or B). The current Memory for each Channel is indicated by the MEMORY LED lit when editing that Channel. **RECALLING DELAY.**

To recall a stored Memory, press RECALL. **SETTING TEMPERATURE.** The AD 22 is factory set for 22°C/71.6°F. To change this, press and hold DISPLAY MODE and press one of the up/down buttons.

Use the Ims/COARSE buttons for degrees Celsius or the 10µs/FINE buttons for degrees Fahrenheit. The LED display shows the temperature setting. Further pressing of the up/down buttons adjusts the temperature setting. **See the full explanation of the power supply requirements elsewhere in this manual.** Note: It is normal to hear harmless short bursts of stored data playback when recalling a memory. Also, powering up the AD 22 without input signal eliminates chirping that may occur when scrolling delay values. **AD 22 CONNECTION** When connecting the AD 22 to other components in your system for the first time, leave the power supply for last. This gives you a chance to make mistakes and correct them before any damage is done to your fragile speakers, headphones, ears, or brains. The AD 22 passes audio while it is unpowered by virtue of its fail safe bypass relays (when the AD 22 functions as a wire). Turn the system volume down before plugging in the AD 22's power.

INPUTS AND OUTPUTS The AD 22's Inputs are electronically balanced. The screw terminals prefer #6 spade connectors. Stripped or tinned wire makes an unreliable union. Connect AD 22 shield wires to the signal ground terminal, the chassis ground screw or neither. The AD 22's Outputs are balanced line drivers. **When the switch opens, Memory A is recalled.** **BYPASS buttons & LEDs:** These momentary push buttons toggle each Channel's hard-wired Bypass. If an LED is on, the given Channel is Bypassed and functions like a wire. If it is off the given channel is active. **STORE LED:** flashes green when the current configuration of the AD 22B is different from the stored configuration.

The STORE LED is off when the current configuration matches the stored configuration. **STORE button:** Stores the current Delay configuration into both Channel's current Memory (A or B). The current Memory for each Channel is indicated by the MEMORY LED which is lit when editing that Channel. **The far right buttons provide 10 microsecond steps.** **Further up/down presses change the temperature setting.**

Wiring external configuration switches to these terminals allows remote recall of the two nonvolatile memories for each Channel. When the switch closes, Memory B for the given Channel is recalled. When the switch opens, Memory A is recalled. These terminals use CMOS (+5 volt) logic levels and sink only 3mA (max.) each.

Recessed lockout switch. Enables the Front Panel Lockout mode. In this mode all front panel controls, with the exception of the CHAN and DISPLAY MODE buttons, are disabled. The Channel button remains active so the user may view the current Delay values without risk of changing them, and the display mode button allows display of Delay values in milliseconds, feet or meters. Press RECALL while in LOCKOUT to temporarily display, but not Recall, the value of the other stored Memory for the indicated Channel. (See OPERATING INSTRUCTIONS for optional Bypass lockout mode, and MEMORY BUTTONS on previous page.) **INPUT/OUTPUT terminals.** **POWER input connector.** **The AD 22 uses an 18 volt AC center-tapped transformer only.** **Consult the factory for replacement or substitution.**

Chassis ground point. A# 6-32 screw and toothed washer is provided for chassis ground. **These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.** This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio and other communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense. **CHASSIS GROUNDING** If after hooking up your system it exhibits excessive hum or buzzing, there is an incompatibility in the grounding configuration between units. Here are some things to try: 1. Try combinations of lifting grounds on units supplied with ground lift switches (or links). 2. Verify all chassis are tied to a good earth ground.

3. Units with outboard power supplies like the AD 22 do not ground the chassis through the line cord. Make sure these units are solidly grounded by tying the Chassis Ground Point to known earth ground. **After initialization, two messages are briefly displayed. The first is the revision level of the software installed in the unit.**

THE BASICS The AD 22 is a two Channel device. Each Channel has a current Delay value that is always active/heard. You can only edit the current Delay values. Additionally each Channel has two nonvolatile Memories, A and B.

The current Delay values can be stored in one of these two Memories. **Otherwise, set the SENSITIVITY control so high signal peaks just illuminate the CLIP indicator, then back it off just a little.** **ADJUSTING CURRENT DELAY VALUE:** One Channel at a time: Press the CHAN button to select the desired Channel. The LED display shows the current Delay value of the selected Channel. Press the up/down buttons until the desired Delay value is reached. That's it! Press the CHAN button until the other CHAN LED is lit and edit its current Delay value. Both Channels simultaneously: If you've selected both Channels (both CHAN LEDs ON), the LED display shows the smaller of the two Channels current Delay values. Changing this value changes the other Channel's value by the same relative amount.



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