Introduction

Thank you for purchasing the MR-1—and congratulations: You now own one of the coolest and most sophisticated pieces of audio signal-processing. Offering a superb level of processing and sound quality, the MR-1's specially designed integrated circuits and straightforward user interface quickly and easily gives you access to all of its features.

Features:

Full 16 Bit Digital Processing
16 Versatile Presets Including:

     5 Plates
     5 Rooms
     4 Halls
     2 Chambers

Bypass Switch
Mix Control
1/4" Mono In/Out
Easy User Interface
Fits Anywhere
Input/Output Level Switches
Designed & Manufactured in the USA

Fill in the following information for your reference:

Date of purchase: _____

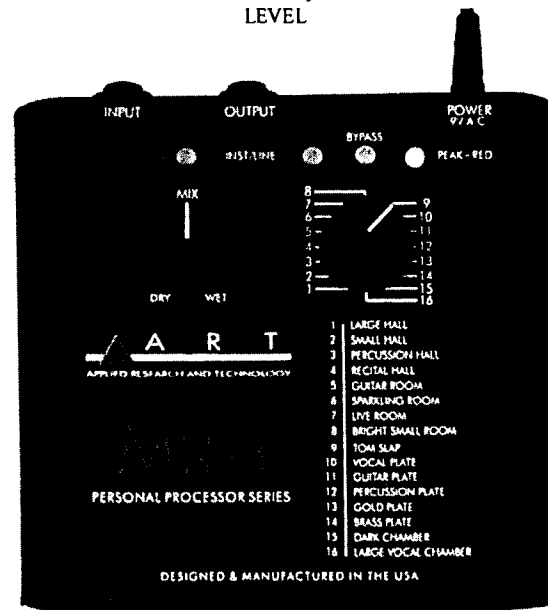Purchased from: _____

Serial number: 120-_____

This is a great time to fill out the User Registration Card included with your MR-1 to become a completely informed A.R.T. Artist. Completing and returning the card to us ensures you of becoming the first to know about exciting new A.R.T. products as well as any further developments from A.R.T.

120-5004-101

MR-1 HIGHLIGHTS

INPUT/OUTPUT LEVEL SWITCHING
FOR MATCHING LEVELS

MIX CONTROL FOR ADJUSTING REVERB LEVEL

5 PLATES, 5 ROOMS,
4 HALLS & 2 CHAMBERS

BYPASS SWITCH

5"H X 5.5"W X 2"D

Connections:

Despite the MR-1's sophistication, it's easy to interface the unit with other equipment. All connections are made at the back of the MR-1. Standard 1/4" inputs and outputs make patching simple. Note: For best audio quality, always use high-quality cables.

Input

The input is single-ended (unbalanced) with an impedance of 470k ohms.

NOTE: Because the MR-1 is designed for line-level or instrument operation, we don't recommended plugging microphones directly into it. This is because most microphones have a very low output and need to run into a mic preamp before anything. Use either a mic preamp, a mixer, or an amp's preamp section to boost the level first (use the effects loop output, reverb send or channel insert from a mixer or amp). The higher signal level from a pre-amp or effects loop assures an optimum signal-to-noise ratio in the MR-1, keeping hiss and distortion to a minimum.

Output

The output is single-ended (unbalanced) with a source impedance of 1k ohm.

Power

Insert the supplied 9 Volt AC adapter's plug into the input labeled POWER on the MR-1's back panel.

The MR-1 is powered by an external 9 Volt AC adapter. Always make sure that its output plug is securely plugged into the rear of the MR-1, and that the adapter is held firmly in an electrical outlet. Never operate the MR-1 or AC adapter in the rain or in wet locations. If the AC adapter's cord is ever cut, discontinue using it and replace the adapter with a new one. To prolong its life, unplug the adapter when the MR-1 is not in use. Refer to the label on the adapter or the specifications later in this manual for the appropriate operating voltages.

Controls, Switches and Indicators:

Mix

You can vary the mix of dry (unprocessed) and wet (processed) signals with this knob. When the Mix knob is set fully counterclockwise, no effect is present at the output. Turning the Mix control fully clockwise produces effected signal only. Use this control to set the desired reverb effect level to your sound.

Preset Selector

Select which preset you want by turning the desired preset selector knob to the preset number. The number corresponds to the preset chart printed on the lower section of the MR-1

Inst/Line Switch

Use the Inst/Line switch to set the operating level for the MR-1. When plugging an instrument such as a guitar directly into the MR-1, set both switches to the INST (switch in) position. When inserting the MR-1 into the effects send and return of a mixing board, set both switches to the LINE (switch out) position. If your Input Inst/Line switch is in the INST position and the clip L.E.D. is on (red), set the switch to the LINE position.

To optimize your levels, set the switches so your Effect signal level is the same as your Bypass level.

NOTE: When using the MR-1 in an effects loop of an amplifier, (depending on the amplifier) you may have to set the Input and Output Inst/Line switches in different positions to optimize your amplifier. i.e. your Input switch may be set to the INST position and the Output switch may be set to the LINE position or vice versa.

Bypass Switch

To switch the reverb effects of the MR-1 in and out of your audio chain, use the Bypass Switch. Push the switch in to BYPASS the MR-1. When the switch is out, the MR-1 is ACTIVE.

Power/Peak L.E.D.

When power is applied to the MR-1, the Power/Peak L.E.D. lights green. This L.E.D. also serves as the signal clip indicator. If to much signal is applied to the MR-1, this L.E.D. lights red. If the L.E.D. is constantly lit, reduce the input to the MR-1 or set the Inst/Line switch to the Inst position.

Applications:

With a mixer's:

Reverb Send and Return

Connect a cord with 1/4" plugs between your mixer's send and the MR-1's Input. Connect another cord between the MR-1's Output and your mixer's return. Set the MR-1's Mix control to Wet.

Input Channel Loop

Some mixers are designed to accommodate effects on each input channel via "channel inserts," or "patch points." These often consist of a single 1/4" phone jack acting as both send and return, requiring a dual-mono-to-TRS (tip/ring/sleeve) plug configuration. Check your mixer's owner's manual to determine which plug of the dual-mono-to-TRS cable acts as a send, and which acts as a return. Connect the mixer's effects send to the MR-1's Input and the MR-1's Output to the mixer's return jack.

With an amplifier:

Straight into an amp

When patching the MR-1 into a guitar (or other instrument) amplifier's input, plug the instrument into the MR-1's Input. Run a cord from the MR-1's Output to the amp's input. Adjust the Mix control until you get the desired Dry vs. Wet sound.

In a mono effects loop

If you're patching the MR-1 into a mono amplifier's effects loop, use one cord between the amp's effects send jack and the MR-1's Input. Run a second cord from the MR-1's Output to the amp's Effects Return jack. Set the MR-1's mix control to its midpoint to start. Set the Input/Output Inst/line switches to match the Bypass level. Use the Mix control to set the desired effect level.

6

Reverb Definitions:

Halls - The character sound is directly related to the size of the hall. Generally, the larger the hall the greater the bass build up which produces the perceived "weight" of the space. In very large halls an almost echo - like sound is produced as initial signals are reflected off the furthest walls. Small halls sound brighter and "lighter" than large halls.

Rooms - Rooms generally exhibit the same characteristics of halls in relation to size, yet rooms are often treated with materials (rugs, stone, wood) to change their sound.

Plates - A Plate reverb is an analog device that uses a transducer (a speaker and a microphone are examples of transducers) to vibrate a large, thin, piece of metal. This vibration is picked up by another transducer that is movable to different lengths of the plate providing adjustable decay times. A Plate reverb is generally thinner or brighter sounding reverb than would be found in a room, hall, or other "natural" reverb setting. Its tone is directly related to the type of metal used for the plate.

Chambers - Created by sending a signal through a speaker into a room or hall. A microphone is used to pick up the sound of the room. Chambers are usually large, warm and slightly echo-like.

Preset Descriptions:

Preset #1 - Large Hall
A large, dense reverb with a 1.9 second decay. Relatively dark in tone.

Preset #2 - Small Hall
A slightly brighter reverb with 1.2 seconds of decay. Recreates the size of a typical large auditorium.

Preset #3 - Percussion Hall
A large space with a tone that accents drums and percussion. Slightly "lighter" yet more aggressive than the Large or Small halls.

7

Preset #4 - Recital Hall
Similar in sound to a school band rehearsal room. A large ambient hall with a quick decay. Great for adding ambience to pianos or strings without adding color.

Preset #5 - Guitar Room
Small, well controlled room suited for guitars. This preset is perfect for adding just a hint of space to a direct guitar without adding too much color.

Preset #6 - Sparkling Room
This room has very little bass response. Perfect for adding a bit of "sizzle" to an instrument or voice.

Preset #7 - Live Room
A medium bright room with 600ms of decay. Use this setting to place an instrument in a fairly large room.

Preset #8 - Bright Small Room
A small room with bright, ambient characteristics. This room is similar to the Live Room with a shorter decay.

Preset #9 - Tom Slap
A medium, live room with a large amount of pre-delay. Ideal for instruments with a short, sharp attack (drums, percussion, horns).

Preset #10 - Vocal Plate
A relatively warm, light reverb designed for use with vocals.

Preset #11 - Guitar Plate
A warm, dense reverb with a short decay.

Preset #12 - Percussion Plate
A short, bright and aggressive reverb designed to accent percussion and drums.

Preset #13 - Gold Plate
A medium decay, smooth reverb perfect for all instruments or vocals.

Preset #14 - Brass Plate
A long decay, bright reverb. Idea for placing a light "wash" on an instrument without cluttering a mix.

Preset #15 - Dark Chamber
A large, warm reverb. A bit "heavier" sounding than a large hall.

Preset #16 - Large Vocal Chamber
Similar in sound to the early Motown recordings. Produces a large vocal space with many heavy reflections.

ART MR-1 Specifications

Dimensions	5.0"H X 5.5"W X 2.0"H
Weight	1.5 Lbs
Connections	Mono In/Out 1/4" phone
Presets	16
Input impedance	470k ohms
Output impedance	1k ohm
Maximum input level	0dBv Line, -10dBv Inst
Maximum output level	0dBv Line, -10dBv Inst
Dynamic range	dry >100dB (20-20kHz)
	wet >90dB (20-20kHz)
Total harmonic distortion (THD)	dry <.01% @ 1kHz
	wet <.015% @ 1kHz
Power Requirements	9 Volts A.C. @ 250ma (typ)

ART retains a policy of constant product improvement. Therefore, specifications are subject to change without notice.

ART reserves the right to make changes in design or make additions to or improvements upon this product without any obligation to install the same on products previously manufactured.

Designed and manufactured in the United States of America.

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