

# MIDIVERB II



## INSTRUCTION MANUAL

### INTRODUCTION & FEATURES

**C**ongratulations on the purchase of your new digital signal processor. MIDIVERB II is a full stereo professional quality multiple effects device that doesn't require a professional to operate. The great variety of sounds heard in modern music production have been captured in MIDIVERB II for instant recall through either manual control or MIDI command. The possibilities for sound enhancement with MIDIVERB II are wide ranging and easy to attain...but most important, eminently musical. You'll be able to maintain spontaneity in your music while creating sounds as subtle or as dramatic as you like.

Among MIDIVERB II's features are a 16 bit linear PCM processing system that delivers sound quality comparable to that of the digital disc medium. The heart of this system is a very large scale integrated chip developed by Alesis specifically for MIDIVERB II. Wide dynamic range

and 15kHz bandwidth allow musical performances ranging from delicate to thunderous with no loss of warmth or subtle harmonics.

The high impedance stereo inputs handle signals from low level electric instruments to +4 professional mixing consoles and you can install the unit in a single space of a 19" effects rack. Also, you can assign any of the 99 programs to 32 MIDI patch locations for integrating MIDIVERB II into your own MIDI system. Most importantly, you're always in control because MIDIVERB II removes the mystery from achieving the best effects available in modern music.

**Before** using your MIDIVERB II please read these simple instructions to fully understand its capabilities. If you're pressed for time, try this quick setup procedure. But, please thoroughly read this manual when you have time, so you won't miss anything important.

### QUICK SETUP

- Connect your source (instrument, mic, mixer) to either of MIDIVERB II's inputs; both inputs if you have a stereo signal.
- Connect the MIDIVERB II outputs to your instrument amp(s) or stereo mixer returns.
- Set the MIX control to 50/50.
- Start the source signal.
- Turn the INPUT control clockwise until the green SIGNAL LED stays on (when signal is present) and the red OVLD (overload) LED flashes occasionally on peaks.
- Turn the OUTPUT control clockwise to the volume level you desire.
- Change Programs manually by pressing any two numbered buttons 00-99.
- Set the MIDI receive channel: Press CHAN followed by two numbered buttons 01-16.
- Assign Programs to MIDI Patch numbers:  
Press PATCH followed by two numbered buttons 01-32.  
Press PRGM followed by two numbered buttons 00-99.  
Hold STORE and press PATCH.
- The system always reverts to Program mode (PRGM LED on).

## CONNECTIONS/ REAR PANEL INPUT & OUTPUT JACKS

### ● How to connect MIDIVERB II into your personal system

On the rear of MIDIVERB II are 1/4" phone jacks for connecting the unit to a mixing console, or for direct connection of any instrument or microphone. A 1/4"

defeat jack is also provided for manually defeating the effected signal. This jack accepts any standard on/off defeat switch.

### ● ...To the effects sends and receives of a mixer

Connect one cable from the effects send or auxiliary send of your mixer to the left or right input of MIDIVERB II. Connect the left and right outputs of MIDIVERB II to the stereo returns of your mixer. Set the mix control on MIDIVERB II fully clockwise which sends only the effected signal to the outputs. This set up will allow you to adjust the ratio of

effected signal to dry signal on the mixer by using the individual input channel faders (dry signal) and the stereo effects returns (effected signal from MV II). Only one output from the mixer is necessary to drive MIDIVERB II's effects which will appear in full stereo at the mixer returns.

### ● ...To a keyboard, drum machine, guitar, or microphone

If you are using an instrument with stereo outputs (keyboard, drum machine, etc.), plug into both left and right inputs of MIDIVERB II. Connect the two stereo outputs of MIDIVERB II to a stereo amp, two channels of a mixer, or two instrument amps. Set the mix control on MIDIVERB II to halfway (50% dry/50% effect) or to the mix ratio you desire. Please note that some effects (like flanging and chorusing) are most dramatic when the mix is set to 50/50. The dry stereo image will appear intact through the outputs of MIDIVERB II.

If you are using an instrument with a mono output (guitar, mic, keyboard, etc.), plug one cable into the left or right input of MIDIVERB II. The dry signal will automatically appear at both outputs for the proper balance of effected and dry signal, so there's no need to use a Y cord on the inputs if you are using a stereo amplification system.

If you are using a single amplifier or one channel of a mixer, use either of the MIDIVERB II's outputs. But, for the most dramatic sound always strive for a stereo setup.

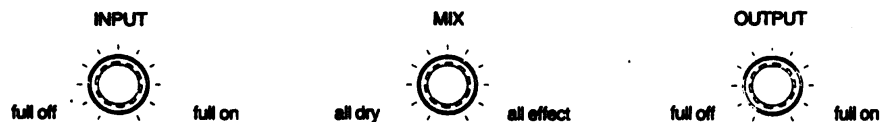
**note** / For the best possible frequency response and the lowest noise, be sure to use high quality audio cables throughout your system. They do make a difference. Check with your Alesis dealer.

## SETTING LEVELS/ FRONT PANEL INPUT, MIX & OUTPUT CONTROLS

### ● How to adjust input and output levels to get the best possible sound out of MIDIVERB II

An incredibly wide dynamic range and low system noise ensure that MIDIVERB II will provide clean distortion free sound and will be extremely quiet during operation... and when it is idling. However,

if you don't pay close attention to some basic setup rules you might miss the full benefits of MIDIVERB II's advanced design. Here's a setup procedure that you should follow closely:



1 Properly connect the unit using high quality cables. Check the section titled Connections for the proper method of installation with your system. Strive to use a stereo setup.

2 Set the INPUT to full off.

3 When connected to an instrument or microphone, set the MIX control half way (50% dry/50% effect). You can adjust the mix to your own taste after you have completed the remainder of

this setup procedure.

When connected to a mixing board, set the MIX control to full on (all effect). You can mix the relative dry and effected signal with the individual input channels and the stereo effects receives on board the mixer: set this balance to 50/50 initially, so that you will hear the full effect of every program, then adjust to taste.

4 Set the OUTPUT control to three quarters on.

**SETTING LEVELS** / *continued*

6 Send a steady signal from an instrument, microphone, or mixer to the input of the MIDIVERB II. Make sure you are sending a strong, clear signal to the unit.

6 Carefully turn the INPUT control clockwise so that the green LED stays on (when signal is present) and the red LED occasionally flashes.

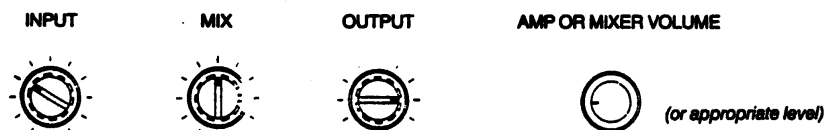
7 Adjust the OUTPUT control of MIDIVERB II to achieve the correct overall signal level from your playback system. You might have to adjust other levels in your system at this time. For example, if you are connected to a mixer you will need to adjust the effects send(s) and receive(s) to the proper level, then set the master stereo output level of the mixer accordingly. If you are connected to an instrument amplifier, you should adjust its volume control to the desired level. Refer to the owner's manual of your mixer or instrument amp if necessary.

8 Now stop the source signal and listen to the system idling. You should hear very little, if any, background noise. If you do hear much noise you should check your source to make sure you have a strong, clear output signal. Also make sure the green and red LEDs on MIDIVERB II are lighting as explained in step number 6. Then check the other level controls in your system again. Adjust them accordingly and watch those LEDs. This is the tricky part but will be well worth the effort.

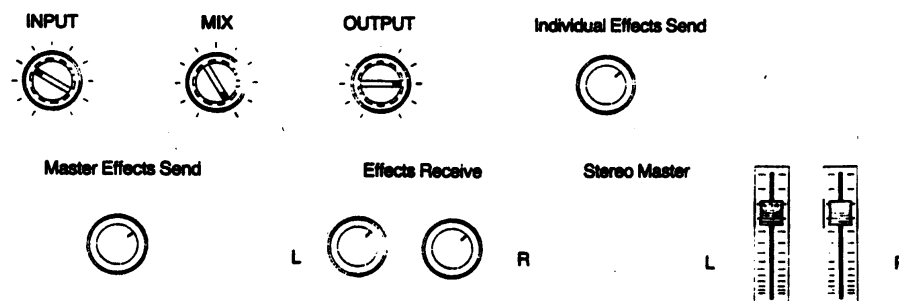
The illustrations below are nominally correct settings for use with a mixer, instrument, or microphone. These levels will vary depending on the actual equipment used, but should fall somewhere in the shaded areas. Use this as a reference guide and starting point. You should find a combination of level settings that will provide an amazingly noise free overall sound... then you can move on to the fun part.

**Direct connection with an instrument or microphone**

(low impedance mics should use a transformer/adaptor)



**Connection with a mixing board**



**MANUAL PROGRAM CHANGE / THE NUMBERED BUTTONS**

● **How to change programs from the front panel**

■ MIDIVERB II is 'always' in Program mode. When first powered up or following manipulation of any front panel buttons, the system automatically reverts to this mode: PRGM LED is on and the LED Display indicates a program number 00-99.

■ Make sure the PRGM LED is on, indicating manual Program change status. If you have been ran-

domly pressing buttons, press the PRGM button or simply wait a moment and MIDIVERB II will automatically revert to PRGM status... so you can't get lost.

■ Press any numbered button from 0 to 9. The lower right segment of the two digit LED display will blink for approximately 4 seconds, prompting you to enter a second number.

## THE PROGRAMS

**Programs 01-29:** 29 Reverb programs that vary in size, tonal coloration, overall frequency response, decay time, amount of pre delay, and stereo imaging. In general, smaller sounding spaces with smoother articulation of the reverb decay will provide the proper range of ambience for full drum kits and rhythm section instruments. The larger spaces will lend themselves readily to vocals and lead instruments. But, since changing programs is so easy, deciding on the correct sound should be based on plenty of experimentation and your own taste.

**Programs 30-39:** 10 gated reverb sounds. Programs 30-34 exhibit a light tail on the close of the gate, while 35-39 shut down fast and clean. Each program varies in tonal characteristics and decay time.

**Programs 40-49:** 10 reverse reverb programs. A stunning modern studio effect formerly available only by laboriously flipping a reel of recorded tape over, playing it backwards and crossing your fingers. Now all you have to do is choose the appropriate reverse effect from these programs. They vary in tonal response and decay time. Programs 45 and 49 are extraordinary variations on the reverse reverb theme. They are exclusive Alesis programs that are unobtainable in any affordable signal processors other than MV II. They are named Bloom and have an envelope that rises (blooms) to a rich and highly diffuse reverb with a smooth decay. These are the ultimate for ethereal effects and long, slow introspective musical passages. Programs 47 and 48 are regenerated reverse reverbs that have extended trailing echoes... lead instrument solos and instrumental and vocal punctuations are perfect applications here.

**Programs 50-59:** 10 flanging programs. Programs 50, 53 and 57 are triggered flanges. The oscillator that creates the flanging effect is reset (triggered) at the top of its cycle whenever the input signal passes a threshold defined in MV II's operating system. Triggering is indicated the instant the green LED turns from off to on. Triggered flanges lend themselves most effectively to instruments with a sharp leading edge to their attack, like cymbal crashes or continuous percussive playing

from drums or rhythm instruments (electric rhythm guitar included).

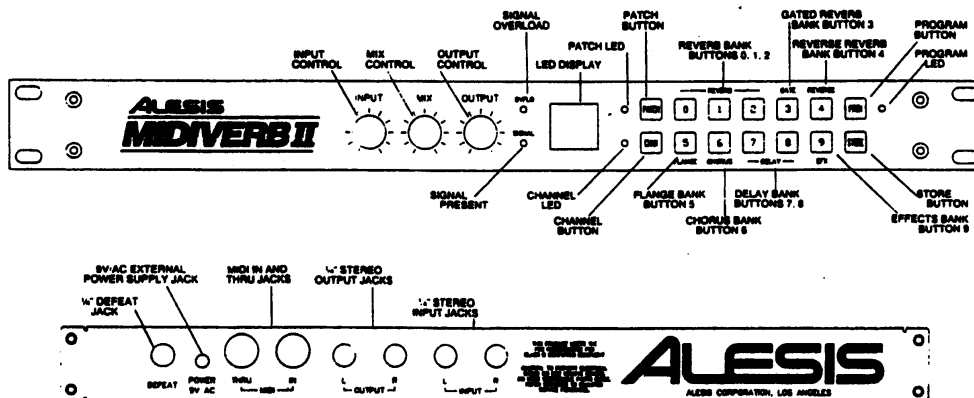
All the flange programs vary in the depth and speed of the flanging effect. In addition most of these programs include some degree of automatic stereo panning that varies in the speed and width of the pan effect. This panning can be very dramatic and greatly enhances the creative possibilities of MIDIVERB II's flange programs.

**Programs 60-69:** 10 chorus programs. These range from very slow rolling chorus with a light pitch modulation to multiple voiced choruses with deeper modulation characteristics. The programs offer subtle to very rich chorus effects and are all musically relevant without any unuseable degree of pitch modulation. MIDIVERB II's chorus programs are especially beautiful because of the system's warmth and wide frequency response.

**Programs 70-89:** 20 single echo effects. Delay times vary from short doubles, to slap effects, and longer delays that are perfect for single trailing echoes behind lead instrument and vocal lines.

**Programs 90-99:** 10 special studio production effects. In order (90-99): 2 tap delay with a light stereo ambience. 3 tap delay panning back and forth in the stereo field. Multitap reverb—perfect for creating multiple voices from a single mono input. Multitap pan—the sound of hundreds of delay taps in a fast single stereo pan. Thickener—all pass filters are used here to create the out of phase sound of a flange effect that's stopped in its modulation cycle (great for rhythm guitar). Two stereo generator programs create stereo signals from a mono source—great for that wide keyboard sound when you don't want to use reverb or chorus. The last three programs are regenerated echoes that vary in decay time and the extent of their trailing echoes—and they are astonishingly clean.

**Program 00:** Convenient defeat of the effects signal through front panel buttons or through MIDI. This works independently of the rear panel defeat jack.



## **MANUAL PROGRAM CHANGE** / *continued*

- While the LED segment is blinking press another numbered button from 0 to 9. This completes the program change. If you fail to enter this second number while the LED is blinking the system will automatically revert to the program that was currently active.
- The programs are organized in banks. Pressing the first number in a bank enters that group of programs. The second number entered will call

the specific program in that group. For example: Press 6. You have entered the CHORUS bank. Press another number 0 through 9... let's choose 5. This will finalize the program change by calling up CHORUS program 65. You will see the number 65 in the two digit LED display. See the section titled **The Programs** for a complete listing of the banks and their programs.

## **MIDI PROGRAM CHANGE / PROGRAM ASSIGN** (also called MIDI mapping)/PATCH, PRGM AND STORE BUTTONS

### ● How to assign any of the 99 programs to any of 32 MIDI patch locations so you can match instrument sounds to the MIDIVERB II programs of your choice

- Press the PATCH button. The Patch LED will light.
- While the PATCH LED is on enter a two digit MIDI patch number from 01 to 32.
- Then press PRGM and enter a two digit program number from 00 to 99. This will become the current program and will now be assignable to the MIDI patch number you just entered.  
But there's one more step...
- While holding the STORE button press the

PATCH button. This completes the program assign.

The assigned program can now be recalled from any MIDI instrument or MIDI sequencer/recorder when you select the appropriate MIDI patch number 01-32.

**Let's try a program assign;** Press the PATCH button. Enter 10. Press PRGM. Enter 65. Hold the STORE button and press PATCH. Now when you select MIDI patch number 10 from any MIDI device, program 65 will be called up on MIDIVERB II.

## **MIDI CHANNEL ASSIGN / CHAN BUTTON & NUMBERED BUTTONS**

### ● How to set the MIDI channel that MIDIVERB II will receive MIDI patch change information on

**MODE 1**—In this mode MIDIVERB II will receive patch change information sent on one of the MIDI channels 01-16 and will access the assignable patch numbers 01-32.

- Press the CHAN button to enter the MIDI channel assign mode. The CHAN LED will light.
- While the CHAN LED is on enter a two digit number from 01 to 16.

You can now change any of the 32 assignable patches by pressing any patch number 01-32 from a controlling MIDI instrument.

**MODE 2**—In this mode MIDIVERB II will receive patch change information on any MIDI channel you send on and will access all 99 programs directly.

- Press the CHAN button.
- While the CHAN LED is on enter the two digit number 00.

With MIDIVERB II set to CHAN 00 you can now change any of the 99 programs by pressing any patch number 01-99 from a controlling MIDI instrument regardless of the channel number you are sending on. Sending MIDI patch number 100 will call up the defeat program, 00.

The **Alesis MPX MIDI PATCH TRANSMITTER** is perfect for MODE 2 operation when MIDIVERB II is not integrated into a MIDI system but you would still like the convenience of a remote controller for making program changes. See your Alesis dealer.

... **special note** You may choose the program that

will be activated each time MIDIVERB II is powered up. Simply assign the program of your choice to MIDI patch number 01. When you turn on the unit the program assigned to MIDI patch 01 will automatically be activated. This is especially useful when MIDIVERB II is to be used in a fixed reverb installation.

## ***A NOTE ON MIDIVERB II's FLANGING PROGRAMS***

### ● **Triggered Flange/programs 50, 53, and 57**

Flanging is created by mixing a variable delayed and pitch modulated signal back with the original signal. This delay and pitch modulation is continuously varied by a low frequency oscillator. The effect creates changes over time in the frequency content of the mixed signal. With 'regular' flanging the delay time and pitch modulation are continuously varied over time. With triggered flanging this continuous variation is interrupted: the delay time is instantly reset to zero and the pitch modulation is reset at the top of its modulation cycle. Triggering occurs whenever the input signal passes a volume threshold defined in MIDIVERB II's operating system and is indicated the instant the green LED turns from off to on. Triggering always starts the oscillator at the top of its cycle and produces a deep super flange controlled by the level of the input signal.

Triggered flanges lend themselves most readily to instruments with a sharp leading edge to their attack, like cymbal crashes or continuous percussive playing from drum kits or rhythm instruments (percussive electric rhythm guitar included). Instruments with a smooth, continuous decay (such as keyboards or lightly strummed guitar) might retrigger the flange during the sustain portion of their sound. This interrupts the smooth flow of sound and might cause a thumping or popping effect.

**This is not a malfunction of MIDIVERB II.** The thumping sound is caused by volume fluctuations in the sustain portion of the sound that are causing the triggering action to reoccur. The triggering is normal but the thumping sounds might be undesirable. Here's what's happening.

If the volume of the sustained signal falls low enough to cause the green LED to turn off and then rises again causing the green LED to turn back on, you have crossed the volume threshold for triggered flange (instantly resetting the delay to zero). This resetting action momentarily interrupts the delayed signal (during the reset) and the thumping, popping sound might appear. Remember, every time the green LED turns from off to on (in Programs 50, 53, and 57) the triggering effect has occurred.

With explosive sounds like drums and percussion (or heavy, pounding electric guitar) that have very sharp attacks and quick decays, the triggering action occurs every time the signal hits the input of MIDIVERB II. Because the envelope of such instruments is so short, there will be no sustained signal present to be interrupted by the triggering action at the onset of the next input signal. That's why triggered flanges are best suited for such instruments.

**Why triggered flange?** Because when applied to the right input signal the effect is fantastic! While these three programs are possibly not appropriate for every situation, we included them because they provide powerful possibilities for creative sound enhancement. If you're careful however, (keep the input level adjusted properly: *green light on all the time*) you can make these triggered flanges work on any signal you choose. Experiment.

### ● **How to get the most out of the Flange programs by using the mix control**

In order to hear the deepest flange effect with each of the 10 flange programs in MIDIVERB II, you must adjust the ratio of dry to effected signal to 50% dry and 50% effect. This is most easily accomplished on board MIDIVERB II by setting the MIX control straight up. Please audition all 10 flanging programs in this fashion so that you will hear the full effect. Then, when mixing dry and effected signal with the faders of a mixing console, you will have a good reference to know when you have achieved a true 50/50 mix (this can be tricky with mixing console faders because of variable trim pots at the input of each channel fader).

Learn the sounds and then trust your ears. Is a 50/50 mix always required? Not necessarily. More subtle flanges can be created simply by changing the mix ratio. Use your own judgment and taste. But please become familiar with the full depth and richness of each program.

### ● **Flanging and Automatic Panning**

There's more to MIDIVERB II's flanging programs than just the standard classic flange effect. Specifically, those programs marked PAN move the signal back and forth in the stereo field. This is called automatic psychoacoustic panning. The best way to hear the signal pan is to remove the dry signal completely from the mix (MIX control on MIDIVERB II full clockwise, hard right) and apply a continuous percussive signal to MIDIVERB II's input. A muted rhythm guitar or simple drum pattern (kick, snare, hi hat) will make it very obvious.

The speed and width of this panning effect is different for each program. Because of the rather light pitch modulation used in the flanging programs, it's possible to remove the dry signal completely from a mix and employ the panning effect on its own without causing an overly out of tune effect (this will vary with the instrument used of course). By adjusting the mix control you can vary the amount of perceived flanging and panning to suit your needs. Experiment! You'll discover some extraordinary and musically useful sounds.