

## INTRODUCTION

The Morley Echo-Chorus-Vibrato pedal has been designed for years of trouble free operation. To insure maximum satisfaction please take a few moments to read this booklet and acquaint yourself with some of the features that may be new to you. Above all, we hope you enjoy using this product as much as we enjoyed making it for you.

## GENERAL INFORMATION

The Morley Echo-Chorus-Vibrato pedal is AC powered and photo-electric cell operated. There are no rack and pinion gears, nor is there a potentiometer coupled to the treadle as in most other pedals. The pilot lamp (number 387 or 327) must be functional for the pedal to work properly.

## PRINCIPLE OF OPERATION

The Echo-Chorus-Vibrato pedal contains solid state digital and analog circuitry that delays the signal for a variable period of time and then combines the delayed signal with the direct signal. This combining of signals results in a direct signal being followed by an echo. When the delayed signal is recirculated back through the delay circuit again multiple repeats occur. In the Chorus-Vibrato mode the amount of delay is continuously varied resulting in many moving frequencies of cancellation and enhancement. These effects along with varying pitch (caused by any change in delay) in the delay portion of the output occur throughout the musical spectrum creating complex exciting new sounds.

## OPERATING INSTRUCTIONS

### General

1. Plug into correct AC source.
2. Connect a musical instrument to the pedal by plugging one end of a shielded cable into the instrument and the other end into the pedal jack labeled "Instrument".
3. Connect a cable from the amplifier input to the pedal jack labeled "Amplifier".
4. Set the controls on your musical instrument and amplifier to their customary settings.
5. Turn the pedal power on with the toggle switch on the top forward end of the unit.
6. Set all controls at 12 o'clock. Depress the footswitches as required to turn off the two LED indicators near the footswitches. You are now in the "Bypass" mode and input signals will pass through the unit converted to low impedance. This is a plus in that no treble attenuation will take place in long cable runs to the amplifier.

### ECHO MODE

1. Depress the "Effect On-Off" footswitch causing the

associated LED indicator to light. The Chorus-Echo LED is lit in echo mode. If the LED is lit depress Chorus-Echo switch.

2. Generate a damped sound (pick a muted string or tap a microphone) and you will hear the direct signal followed by the echo effects created by the unit.
3. To obtain the desired echo effect you may experiment with control and pedal settings while playing your musical instrument, however the following explanation of the controls may save you some time.
4. Adjust the foot pedal for the desired delay time or repeat interval. The delay time at maximum (toe up, heel down) is approximately 300 milliseconds (0.3 second). Delay time at minimum (toe down, heel up) is approximately 15 milliseconds (0.015 seconds). 15 to 300 milliseconds of delay time corresponds to 66 2/3 to 3 1/3 repeats per second. The short-delay fast-repeat section of the delay range may be used as reverberation or as enhancement of existing reverberation in your amplifier.
5. Movement of the pedal in this mode results in a momentary change in pitch in the delay output. This pitch change may be small or very substantial depending upon how fast the pedal is moved. Many special effects may be obtained in this manner including a constant output pitch many semitones different than the input for a very short period of time.
6. The "Repeat" control provides from one echo to 30 or more repeats. This repeat control is automatically compensated to prevent runaway conditions at short delay times.
7. The "Mix" control adjusts the ratio of direct and echo signals so that the first echo may be equal to or softer than the direct sound.

### CHORUS-VIBRATO MODE

1. Depress the "Chorus-Echo" footswitch causing the associated LED indicator to light. This indicator will flash at the chorus-vibrato sweep rate with the "Effect On-Off" footswitch in either on or off conditions. This allows pre-setting of the sweep rate while still in the bypass mode.
2. Adjust the foot pedal for the desired sweep rate anywhere within the range of 9 sweeps per second (9 Hertz) and one sweep every 20 seconds (50 millihertz).
3. Adjust the "Depth" control for the desired intensity of effect. The "Depth" control is automatically compensated to maintain depth as set over the entire sweep rate range. Note that there is more than enough chorus effect capability even at one sweep every 20 seconds.
4. The "Mix" control also has an effect upon the perceived