1. FRONT PANEL FEATURES AND FUNCTIONS

(1) INPUT HEADROOM-indicators show if the input level is right or not. Adjust the LEVEL Knob for the red to illuminate at the signal peak.

(2) In sampling mode, the LEVEL changes the memory output after sampling.

(3) MIX Knob adjusts the balance of DRY signal and DELAY/SAMPLE/MEM signal.

(4) FEEDBACK/OVERDUB Knob
In DELAY mode, the knob controls feedback (repeats). Clockwise rotation increases the number of repeats. In SAMPLE mode, the knob determines the overdubbing level.

(5) DELAY /SAMPLE
In DELAY mode, the unit is a one-second digital delay. In SAMPLE mode, it functions as a digital sampling machine.

(6) MEMORY MAP shows how the unit memorizes. Basically, the memory is divided into 8 segments and the part you are not using retains the recorded sound until it is erased. Using this feature, it is possible to connect sounds.

(7) MEMORY RANGE
It controls the delay /sampling time.

(8) MEMORY MULTI
It does fine adjustments on the delay /sampling time. The CAL position is the standard setting.

(9) HOLD/REC
In DELAY mode, it is the HOLD switch. The unit is in HOLD when the LED is off. Hold continues until either the power is turned off or the switch is pushed again. In REC mode, the input signal is stored in the internal memory.

(10) TRIG/GATE Mode Switch
In TRIG mode, the memory is cued each time it is triggered. (playback)

In GATE mode, the memory is cued each time the gate signal increases. If the sound is stored in the memory, memory output is stopped by a low gate signal.

(11) PLAY Button
The delay sound can be cued to a set position on the memory map. The LED illuminates when it is being used.
It is used as the switch for play-start or to cue the recorded sound. The LED flashes when the switch is pressed.

(12) BYPASS Switch
When changed from BYPASS to EFFECT, the trigger signal is sent to the TRIG /PLAY circuit automatically.

(13) POWER

2. REAR PANEL FEATURES AND FUNCTIONS

(14) FUSE
Use A fuse.

(15) GATE IN Jack
When you connect the trigger or gate signal from the synthesizer, the sound which is stored in the memory is sent out each time the key is pressed.

(16) CV IN Jack
The pitch of the sampled sound can be changed by connecting a keyboard CV with a 0 to 3V range.

(17) F.S. PLAY Jack
A footswitch does what PLAY button (11) does.

(18) F.S. HOLD /REC Jack
A footswitch does what HOLD /REC button (9) does.

(19) F.S. BYPASS Jack
A footswitch does what BYPASS Switch (12) does.

(20) DIRECT OUTPUT Jack
A direct output is obtained.

(21) MIX OUTPUT Jack
The mix output is obtained. Connect to an amplifier or a mixer.

3. SAMPLING

DIG-420 is a one second digital sound recorder. Recording (sampling) time is calculated by RANGE +8 ×MULTI. You might consider RANGE as the length of the magnetic tape and MULTI as the speed of recording or playback.

(1) HOW TO SAMPLE (RECORD)

1. BYPASS ⑫ off.
2. FEEDBACK-MIN. Select SAMPLE Mode ⑤.
3. Set the recording time with RANGE ⑦ and MULTI ⑧.
4. Push the PLAY switch ⑪ and check that the LED flashes.
5. Connect a microphone or an instrument to the INPUT Jack ⑭.
6. Input the sound as soon as you push the REC switch ⑨.
   When you push REC button, the REC and PLAY indicators ⑨, ⑪ flash. The flashing time is the record (sampling) time.
7. The REC switch automatically goes off, when you finish recording.
8. Check the sound you sampled by pushing PLAY button.

☐TO ERASE THE SOUND

If you want to erase the sound, turn the volume of the instrument or other input source down to 0 and push the REC switch.

☐MEMORY PROTECTION

The recorded sound is stored in the internal memory even if you turn off the power.

(2) KEYBOARD CV CONTROL

The pitch of sampled sound can be controlled by the external keyboard CV (1V/OCT).

1. Follow "How to sample " from 1 to 8 except :
2. Set the MULTI knob ⑧ to CAL and record C sound.
3. Connect the keyboard gate out to the Ext. CV in jack ⑯ on the back panel.

☐A range of 3 octaves is guaranteed.

☐We recommend that you should test with your keyboard before you perform.

☐In TRIG mode (⑩), pushing PLAY ⑪ button cues memory when the +5V trigger signal or gate signal of the synthesizer is loaded, and the unit enters the stand-by state after playing back to the end.
In DELAY mode (⑤), pushing PLAY button ⑪ cues the memory only.

☐In GATE mode ⑩, when a +5V gate signal is loaded, pushing PLAY button ⑪ first cues the memory. It plays back to the end while pressing the key, and then enters the stand-by state.
If you release the key in the middle of playback, the sound stops.

☐If you just want to trigger the memory, set the selector ⑩ to TRIG mode.

(3) APPEND

As shown in MEMORY MAP, the memory is divided into 8 segments, and the part you are not using retains the recorded sound until it is erased. APPEND is possible with this feature.

1. Set DELAY /SAMPLE Selector ⑤ to SAMPLE with the knobs as follows : LEVEL ②→MIN, MIX ③→MEM, OVERDUB ④→MIN, RANGE ⑦→FULL, MULTI ⑧ →CAL.
2. Sample a sound.
3. Return to Setting 1 except RANGE ⑦→4 /8, and sample another sound.
4. Play it back with MULTI ⑧ at CAL. You will notice the first sound is heard in the first half and the second sound in the latter half.

□The unit is not out of order even when you hear the click noise at the connecting part of the sound. This will happen when the signal wave width recorded first has attained its peak at the divided memory part or when the appended sound source was connected with the preceding signal in reverse at the divided point. In this case, append again from the point where the noise occurs. If there is still some noise, repeat the procedure..

(4) OVERDUBBING

Overdubbing is possible with DIG-420.

1. Follow " How to sample " and record the first sound. Be sure to check the sound by playing it back.
2. Set DELAY /SAMPLE Selector ⑤ to SAMPLE with knobs as follows : LEVEL ②→MIN, MIX ③→MEM, OVERDUB ④→MAX, RANGE ⑦→FULL, MULTI ⑧ →CAL.
3. Now it is ready for overdubbing. Just like sampling, push the REC button ⑨ when you put the sound into the unit.
4. Push the PLAY button ⑪ and play it back to check that overdubbing has been done correctly. If it has not been done correctly, repeat the procedure.
5. If you want to do more overdubbing, repeat the overdubbing procedure.

(5) SEQUENCE

If you understand APPEND, you will realize that you can step record with a minimum length of 1 /8. You can have sequences of up to 8 steps. It is possible to have an arpeggio or a short rhythm sequence.
If you play back at 6 /8, you can apply it for s song of 3 /4 or 6/8, and also for triplets.

4. DIGITAL DELAY

DIG-420 is a one-second digital delay, too. In DELAY mode, the units connects the beginning and end of the memory and makes a loop. The loop time equals the delay time.

(1) SETTING

1. Select DELAY mode by pushing DELAY/SAMPLE Selector ⑤ switch.
2. Delay time is calculated by
   RANGE × MULTI
3. HOLD/REC ⑨ is the HOLD switch in DELAY mode. When its LED is on, the HOLD function is not in operation. If you want to HOLD, push the button ⑨ and make sure that the LED is off.

(2) TO CUE THE DELAY SOUND

1. In DELAY mode (REC ⑨ : ON) , push the PLAY button ⑪ and start recording. You can cue the repeating delay with the PLAY ⑪ switch.
2. Select TRIG on the TRIG /GATE Selector ⑩. When you connect the trigger or gate signal, you can cue the delay as in 1.

□In either DELAY or SAMPLE mode, when you turn off the bypass switch, the playback starts automatically.

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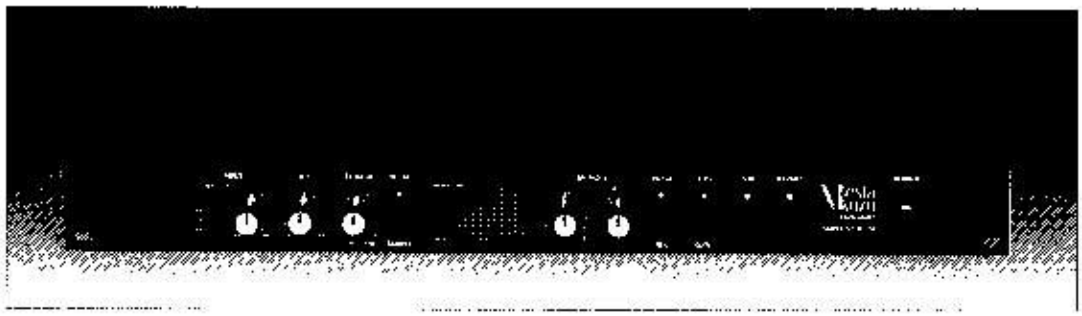
Specifications subject to change without notice



Sampler/Delay

DIG-420

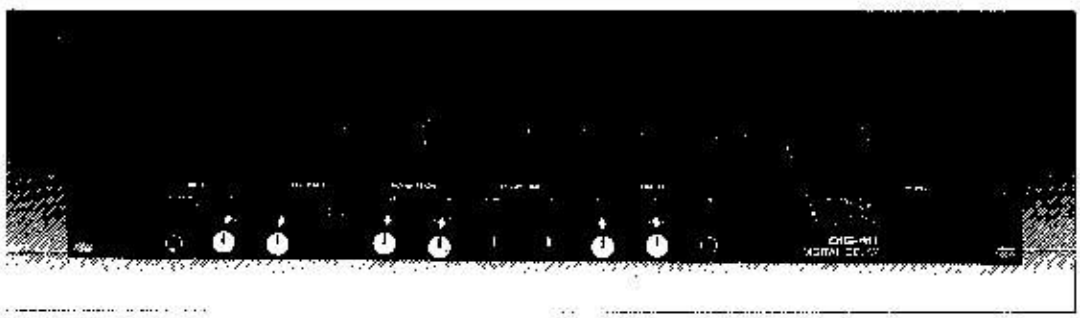
FEATURES

- 1 sec. sampling
- Pitch control via Keyboard CV
- Append and overdub
- 1 sec. digital delay

The Vesta KOZO DIG-420 is a one second digital delay with one second sampling function. With sampling, you can memorize a sound up to one second whatever the source is. The memorized sound is cued and played back until the end of the memory each time it is triggered. By connecting the CV and gate from an external keyboard, the pitch of the sound can be altered in 3 octaves. The DIG 420 is also a digital delay with Hold function.

SPECIFICATIONS

● **Input level:** 20 dBm ● **Input impedance:** 470 kΩ ● **Output level:** 20 dBm ● **Frequency response:** 20 Hz - 7.5 kHz (Memory), 20 Hz - 20 kHz (Bypass) ● **S/N ratio:** 95 dB ● **Distortion:** 0.05% at 1 kHz (Effect), 0.02% at 1 kHz (Bypass) ● **Memory length:** 1000 ms ● **Dimensios:** 485W × 44H × 245D m/m ● **Weight:** 4 kg.



Digital Delay

DIG-411

FEATURES

- 1,024 ms delay time
- Frequency response to 15 kHz
- Hold function
- Modulation for chorus and flanger

The Vesta KOZO DIG-411 is a basic digital delay with 1.024 ms delay time. The delay range of 1—1,024 ms enables you to obtain a wide variety of sound effects, such as slap back echo, doubling, flanging, chorus and long delay. Its wide frequency response makes it good for vocal, guitar, keyboard and P.A.

SPECIFICATIONS

● **Input level/impedance:** - 20 dB/470 kΩ ● **Max. input level:** +21 dB ● **Output level/impedance:** 50 dB (direct), 10 dB (delay)/600 Ω ● **Max. output level:** +4 dB ● **Frequency response:** 10 Hz—50 kHz + 0, - 3 dB (direct), 20 Hz—15 kHz + 1, - 3 dB (delay) ● **Hi-cut:** 10 kHz, 12 dB ● **Dynamic range:** 100 dB, direct (IHF A), 88 dB, delay (IHF A) ● **Modulation rate:** 0.1—10 Hz ● **Distortion:** 0.005% TYP. direct, 0.1% TYP delay ● **Power:** 8 W ● **Dimensions:** 485W × 44H × 245D m/m ● **Weight:** 4 kg

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