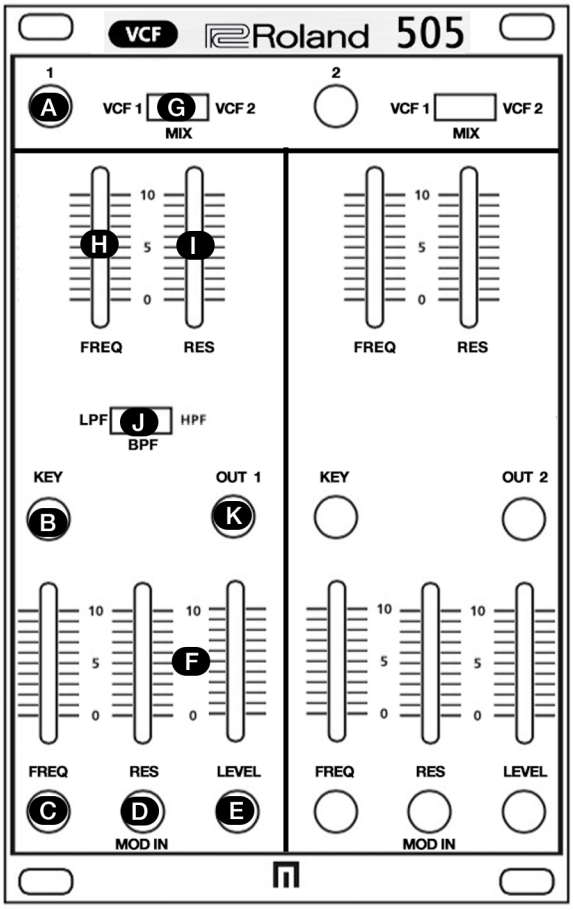
ROLAND SYSTEM-500 MODULE 505

DUAL VOLTAGE CONTROL FILTER

Inject the sound of the Roland SH-5's revered filter section into your modular rig. The Roland SH-5 is one of the most sought after monosynths in history. Its dual architecture was deep and sounded massive. It also happened to have one of the most distinguished filters of any monosynth in history. Combining a multi-mode filter with a band-pass filter, it produced a sound that has propelled it to “favorite filter ever” territory.



A SIGNAL IN 1/2
These jacks input audio signals. The signals of both SIG IN1 and 2 are input to both VCF1 and VCF2.

B KEY FREQUENCY
This jack inputs a voltage that controls the cutoff frequency of the VCF. Keying it to 1v/Oct for scaled filter response.

C MOD INPUT FREQUENCY
This jack inputs a voltage that controls the cutoff frequency of the VCF.

D MOD INPUT RESONANCE
This jack inputs a voltage that controls the resonance of the VCF

E MOD INPUT LEVEL
This jack inputs a voltage that controls the volume of the VCA.

F CV INPUT ATTENUATORS
These sliders adjust the gain of the voltages that are input from the MOD IN FREQ/RES/LEVEL jacks.
If nothing is connected to the LEVEL jack, 12V is supplied to LEVEL, allowing it to adjust the output volume from the OUT jack.

G OUTPUT SELECT SWITCH
These switches select the signals that are output from the OUT jacks. The signals that you select here are output after passing through the VCA.

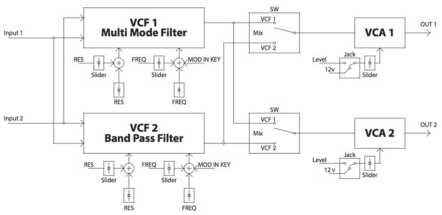
H CUTOFF FREQUENCY
This slider adjusts the cutoff frequency of the filter.

I RESONANCE
This slider boosts the frequency region near the cutoff frequency.

J VCF 1 MODE SWITCH
This switch selects either LPF, BPF, or HPF as the filter type for VCF1.

K VCF 1 MODE SWITCH
This switch selects either LPF, BPF, or HPF as the filter type for VCF1.

BLOCK DIAGRAM



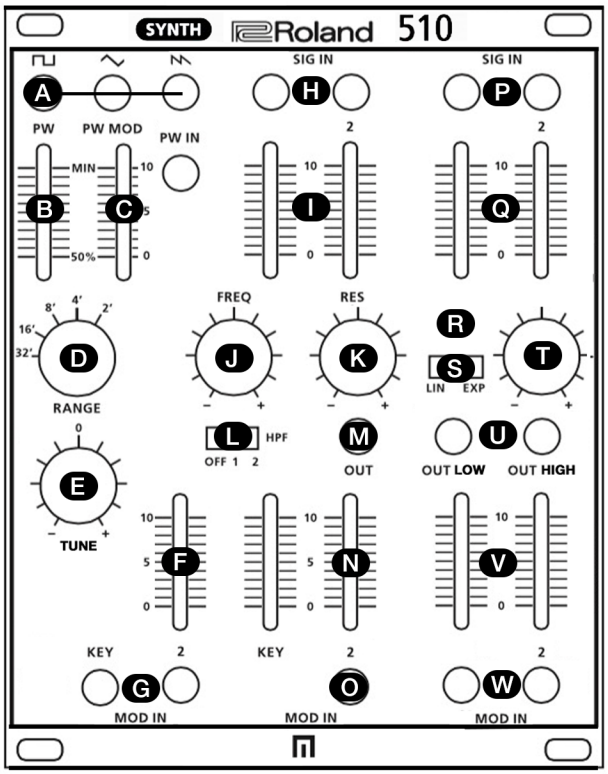
SPECIFICATIONS

CONTROLLERS	VCF SELECT SWITCH (1, 2)
	FREQUENCY SLIDER (1, 2)
	RESONANCE SLIDER (1, 2)
	FILTER TYPE SWITCH
	MOD IN FREQ SLIDER (1, 2)
	MOD IN RES SLIDER (1, 2)
	MOD IN LEVEL SLIDER (1, 2)
CONNECTORS	SIGNAL IN JACK (1, 2)
	KEY IN JACK (1, 2)
	OUT JACK (1, 2)
	MOD IN FREQ JACK (1, 2)
	MOD IN RES JACK (1, 2)
	MOD IN LEVEL JACK (1, 2)
POWER SUPPLY	EURORACK POWER
CURRENT DRAW	85 MA (+12 V)
	90 MA (-12 V)
ACCESSORIES	OWNER'S MANUAL
	LEAFLET "USING THE UNIT SAFELY"
	EURORACK INSTALLATION SCREWS
	EURORACK POWER CABLE

ROLAND SYSTEM-500 MODULE 510

SYNTHESIZER VOICE

The 510 is a three-in-one module with three functions: VCO, VCF, and VCA. Several of the jacks are internally patched, allowing you to create sounds with minimal patching. You can defeat the internal patching by inserting plugs into the jacks.



A VCO OUT
These jacks output the signal from each VCO (pulse wave, triangle wave, sawtooth wave

B PW
Specifies the pulse width (the ratio between the upper and lower portions of the pulse wave).
* For a symmetrical square wave, set the slider to the "50%" position.

C PW MOD
Adjusts the depth of pulse width modulation based on the voltage that is input from the PW IN jack.

D RANGE
Switches the pitch range of the VCO. You can switch the range up or down in one- octave steps in a five-octave range from 32' to 2'.

* If you set this to the 8' position and apply a voltage of 2V to MOD IN KEY, the middle C pitch is produced.

E TUNE
Makes fine adjustments to the VCO range.

F CV 2 ATTENUATOR
Adjusts the depth of pulse width modulation based on the voltage

G MOD IN KEY/2
Adjusts the level of the voltage that is input from the MOD IN 2 jack.

H VCF SIG IN
These jacks input audio signals.

I VCF SIG IN LEVEL CONTROL
These sliders adjust the level of the signals that are input from the SIG IN jacks.

J VCF FREQ
Adjusts the cutoff frequency of the filter.
* Setting this to a low value lowers the cutoff frequency, so that the high-frequency portion of the signal does not pass through. Setting this to a high value raises the cutoff frequency, so that the input signal is output without change.

K VCF RES
Boosts the frequency components in the region of the cutoff frequency.
* By raising the resonance you can make the VCF oscillate. You can use this as an audio source for sound effects, or use KYBD CV to control the VCF and play pitches from the keyboard.

L VCF HPF
Adjusts the cutoff frequency of the High Pass Filter.
* At the OFF setting, the original waveform passes through without change. As you raise the setting to 1 or 2, the cutoff frequency rises, allowing only the high-frequency portion of the signal to pass through.

M VCF OUT
These are output jacks. These jacks output the signal from the VCF.

N VCF CV IN ATTENUATOR
This slider adjusts the gain of the voltage that is input from the MOD IN KEY/2 jacks.

O VCF MOD IN KEY/2
These jacks input a voltage that controls the VCF color.

P VCA SIG IN
These jacks input audio signals.

Q VCA SIG IN LEVEL CONTROL
These sliders adjust the level of the signals that are input from the SIG IN jacks.

R INDICATORS
These indicate the state of the output signal (load: green, overload: red).

S LIN/EXP CONTROL MODE
Specifies whether the control voltage and setting of the INITIAL knob affects the audio signal linearly or exponentially.

T INITIAL
Adjusts the VCA's initial gain (the gain when there is no control voltage at all).
* If you are using only a control voltage to control the VCA, use this knob to specify the initial gain appropriately for the LIN/EXP control mode setting: 0 (for LIN) or in the region of 1 (for EXP).

U OUTPUT LOW/HIGH
These are output jacks. These jacks output the signal from each VCA. The OUT LOW jack outputs a lower-level signal than the OUT HIGH jack.

V VCA CV INPUT ATTENUATOR
These sliders adjust the gain of the voltages that are input from the MOD IN 1/2 jacks.

W VCA MOD IN 1/2
These jacks input voltages that control the VCA.

SPECIFICATIONS

CONTROLLERS	
VCO	PULSE WIDTH SLIDER
	PWM SLIDER
	SIGNAL IN 3 SLIDER
	MODULATION IN 2 SLIDER
	RANG
	TUNE
VCF	SIGNAL IN 1 SLIDER
	SIGNAL IN 2 SLIDER
	KEY IN SLIDER
	MODULATION IN 2 SLIDER
	HPF SWITCH
	FREQUENCY KNOB
	RESONANCE KNOB
VCA	SIGNAL IN 1 SLIDER
	SIGNAL IN 2 SLIDER
	MODULATION IN 1 SLIDER
	MODULATION IN 2 SLIDER
	LINER/EXPONENTIAL SWITCH
	INITIAL KNOB
INDICATORS	LOAD INDICATOR
	OVERLOAD INDICATOR
CONNECTORS	
VCO	SQUARE WAVE JACK
	TRIANGLE WAVE JACK
	SAW WAVE JACK
	PULSE WIDTH IN
	KEY IN JACK
	MODULATION IN 2 JACK
VCF	SIGNAL IN 1 JACK
	SIGNAL IN 2 JACK
	OUT JACK
	KEY IN JACK
	MODULATION IN 2 JACK
VCA	SIGNAL IN 1 JACK
	SIGNAL IN 2 JACK
	OUT LOW JACK
	OUT HIGH JACK
	MODULATION IN 1 JACK
	MODULATION IN 2 JACK
POWER SUPPLY	EURORACK POWER
CURRENT DRAW	75 MA (+12 V)
	60 MA (-12 V)
ACCESSORIES	OWNER'S MANUAL
	LEAFLET "USING THE UNIT SAFELY"
	EURORACK INSTALLATION SCREWS
	EURORACK POWER CABLE)

ROLAND SYSTEM-500 MODULE 510

SYNTHESIZER VOICE

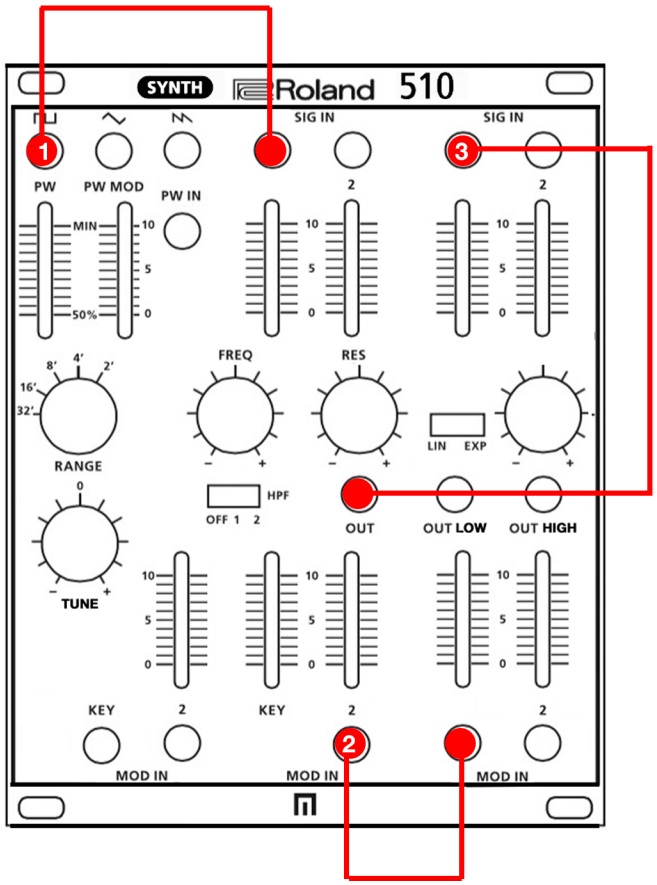
INTERNAL PATCHING

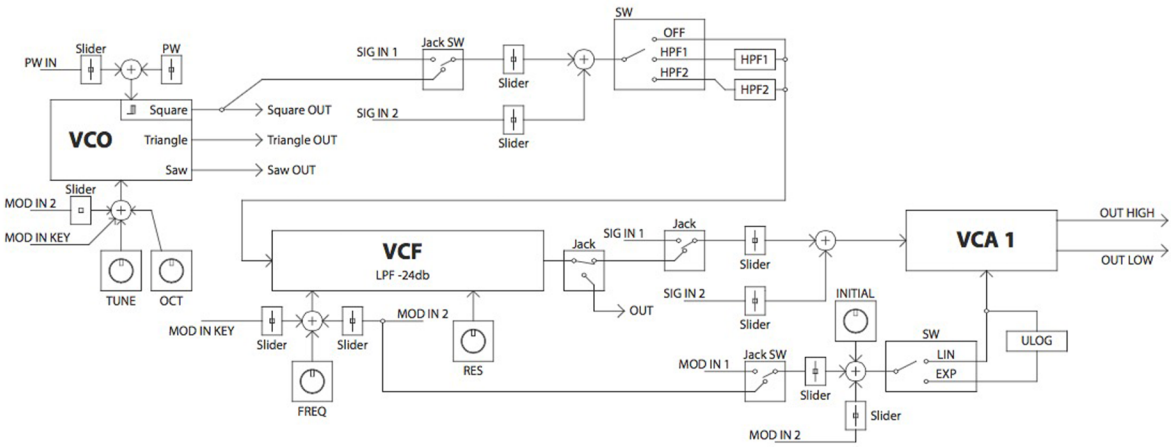
1 - SQUARE WAVE & VCF SIG IN 1
IF NO PLUG IS INSERTED IN VCF SIG IN 1, IT IS PATCHED TO A SQUARE WAVE.

2 - VCF OUT & VCA SIG IN 1
IF NO PLUG IS INSERTED IN VCA SIG IN 1, IT IS PATCHED TO VCF OUT.

* IF A PLUG IS INSERTED IN VCF OUT, IT IS NOT PATCHED TO VCA SIG IN 1.

3 - VCF MOD IN 2 & VCA MOD IN 1
IF NO PLUG IS INSERTED IN VCA MOD IN 1, IT IS PATCHED TO VCF MOD IN 2.

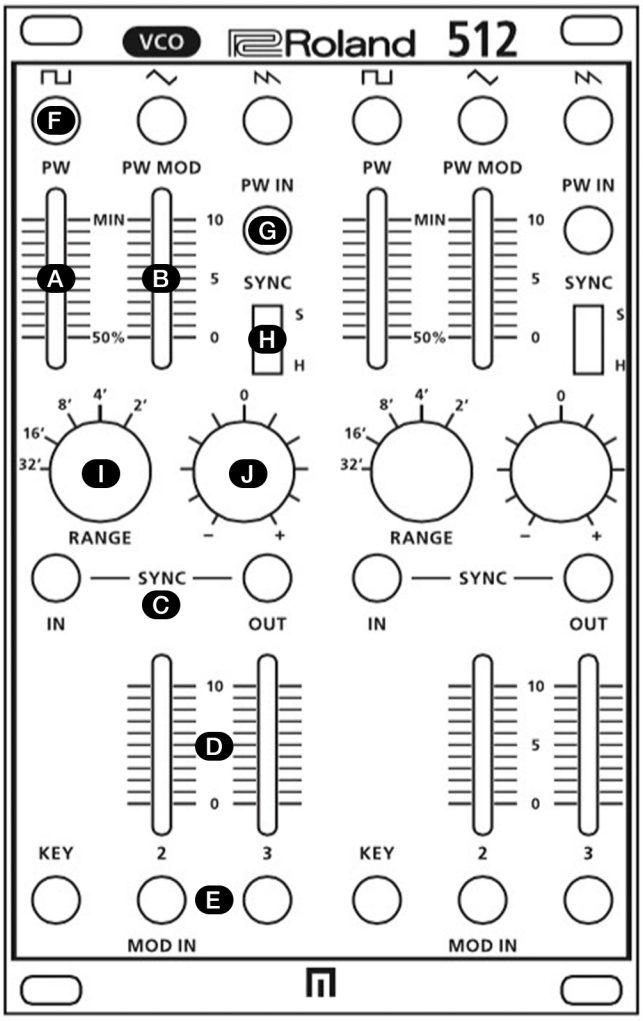




ROLAND SYSTEM-500 MODULE 512

DUAL VOLTAGE CONTROL OSCILLATOR

The 512 Dual VCO (voltage controlled oscillator) is a single module consisting of two voltage controlled oscillators. Each independent VCO produces frequencies across a wide range with 1V/octave tracking and dedicated pulse, triangle, and saw wave outputs. Variable pulse width is available via panel control or CV modulation. Each oscillator's frequency can also be synchronized to the other in weak or strong modes to achieve a unique "sync" sound.



A PULSE WIDTH CONTROL
Specifies the pulse width (the ratio between the upper and lower portions of the pulse wave).

* To produce a square wave (symmetrical pulse wave), set the slider to 50%.

B PW MOD
Adjusts the depth of pulse width modulation based on the voltage that is input from the PW IN jack.

C SYNC IN/OUT
These jacks input or output synchronization signals.

D CV INPUT ATTENUATOR
Adjust the level of the voltage that is input from the MOD IN jacks.

E MOD IN KEY/2/3
These jacks input voltages that control the VCO.

F VCO OUT
These jacks output the signal from each VCO (pulse wave, triangle wave, sawtooth wave).

G PW IN (PULSE WIDTH IN)
This jack inputs a voltage used to control the pulse width (PWM) from an external source.

H SYNC
Switches the accuracy of synchronization (S: Soft, H: Hard).

I RANGE
Switches the pitch range of the VCO.
You can switch the range up or down in one-octave steps in a five-octave range from 32' to 2'.

* If this is set to 8' and a voltage of 2V is applied, the middle C pitch is sounded.

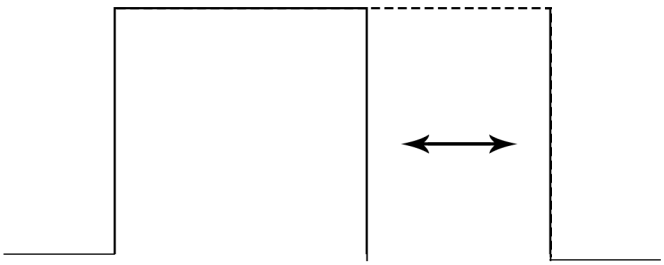
J PITCH CONTROL
Fine tune adjustment.

SPECIFICATIONS

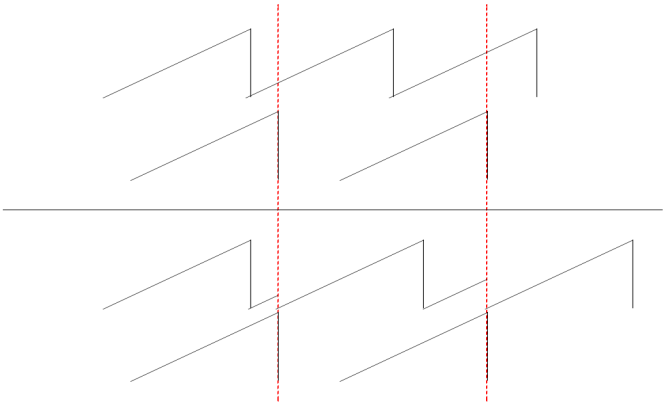
CONTROLLERS	PULSE WIDTH SLIDER
	PWM SLIDER
	MODULATION IN 2 SLIDER
	MODULATION IN 3 SLIDER
	SYNC SWITCH
	RANGE KNOB
	PITCH KNOB
CONNECTORS	SQUARE WAVE JACK
	TRIANGLE WAVE JACK
	SAW WAVE JACK
	PULSE WIDTH IN JACK
	SYNC IN, OUT JACKS
	KEY IN JACK
	MODULATION IN 2 JACK
	MODULATION IN 3 JACK
POWER SUPPLY	EURORACK POWER
CURRENT DRAW	70 MA (+12 V)
	50 MA (-12 V)
ACCESSORIES	OWNER'S MANUAL
	LEAFLET "USING THE UNIT SAFELY"
	EURORACK INSTALLATION SCREWS
	EURORACK POWER CABLE

ROLAND SYSTEM-500 MODULE 512

ABOUT PULSE WIDTH



ABOUT SYNC



ABOUT PULSE WIDTH

A pulse wave in which the upper and lower portions of the waveform have unequal width is called an asymmetrical pulse wave, and the numerical ratio of the upper and lower widths (to be precise, the portion of one cycle occupied by the upper portion) is called the pulse width. The pulse width value significantly changes the overtone structure, modifying the tonal character of the sound.

* If the pulse width is 1/n, the harmonics at multiples of 'n' are missing. For example, if the pulse width is 1/3 (33%), the 3rd, 6th, 9th, . . . harmonics are missing.

The technique of using a control voltage (such as LFO or ENV) to control the pulse width is called pulse width modulation (PWM).

ABOUT SYNC (SYNCHRONIZATION)

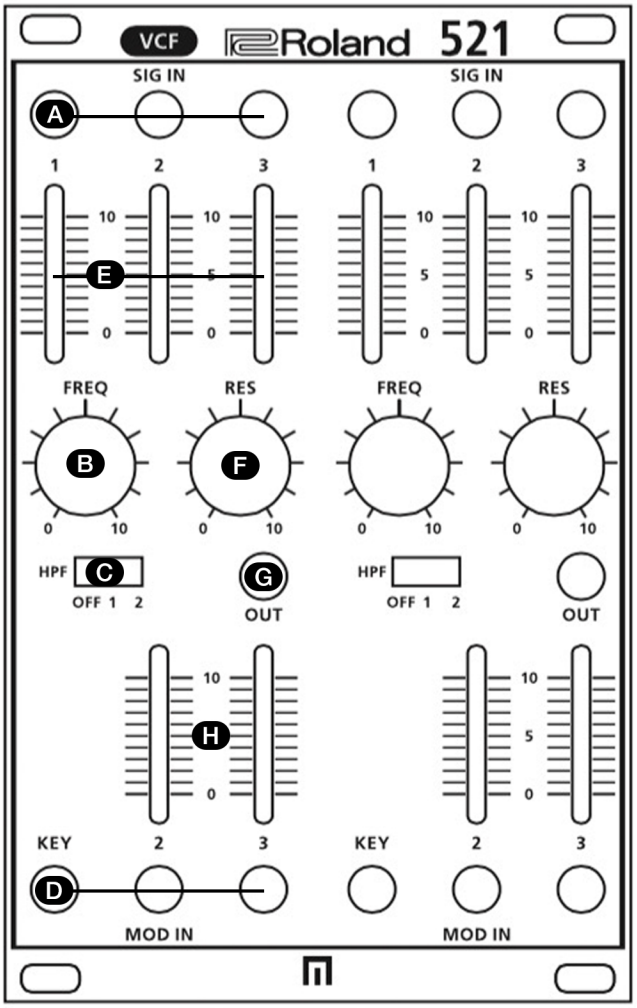
SYNC synchronizes the frequency of a VCO with the frequency of another VCO. By synchronizing two VCOs you can create waveforms that cannot be produced by a single VCO.

If the SYNC switch is set to S: Soft, the VCO of the 512 module synchronizes perfectly to the frequency that is input from the SYNC IN jack. If the SYNC switch is set to H: Hard, the VCO of the 512 module synchronizes to integer ratios of that frequency, such as 1/2, 2/3, 3/4, 1/1, 4/3, 3/2, or 2/1.

ROLAND SYSTEM-500 MODULE 521

DUAL VOLTAGE CONTROL FILTER

The 521 Dual VCF (voltage controlled filter) module features two separate low pass filters for modifying the timbre of audio sources. Each filter has its own dedicated controls for frequency cutoff, resonance, and a fixed high pass filter with two switchable cutoff points. Audio and CV input mixers on each channel allow the blending of multiple audio signals and modulation sources.



A SIG IN 1/2/3
These jacks input audio signals.

B CUTOFF FREQUENCY
Adjusts the cutoff frequency of the filter (Low Pass Filter).

* At a setting of 10, the original waveform passes through without change. As you lower the value, less of the high-frequency region passes through.

C HIGH PASS FILTER
Adjusts the cutoff frequency of the HPF (High Pass Filter).

* At the OFF setting, the original waveform passes through without change. As you raise the setting to 1 or 2, the cutoff frequency rises, allowing only the high- frequency portion of the signal to pass through.

D MOD IN KEY
These jacks input a voltage that controls the VCF color.

E SIG IN LEVEL CONTROLS
These sliders adjust the level of the signals that are input from the SIG IN jacks.

F RESONANCE
Boosts the frequency components in the region of the cutoff frequency.

* By raising the resonance you can make the VCF oscillate. You can use this as an audio source for sound effects, or use KYBD CV to control the VCF and play pitches from the keyboard.

G OUT
These are output jacks. These jacks output the signal from the VCF.

H ATTENUATOR FOR CV INPUT
These sliders adjust the gain of the voltage that is input from the MOD IN KEY/2/3 jacks

SPECIFICATIONS

CONTROLLERS
- SIGNAL IN 1 SLIDER
- SIGNAL IN 2 SLIDER
- SIGNAL IN 3 SLIDER
- MODULATION IN 2 SLIDER
- MODULATION IN 3 SLIDER
- HPF SWITCH
- FREQUENCY KNOB
- RESONANCE KNOB

CONNECTORS
- SIGNAL IN 1 JACK
- SIGNAL IN 2 JACK
- SIGNAL IN 3 JACK
- OUT JACK
- KEY IN JACK
- MODULATION IN 2 JACK
- MODULATION IN 3 JACK

POWER SUPPLY
EURORACK POWER

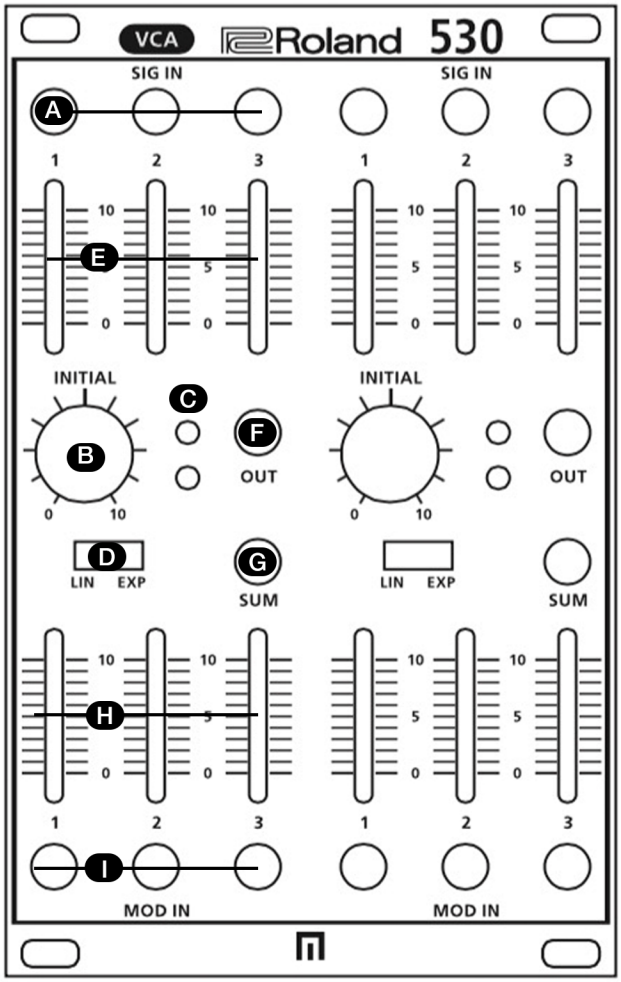
CURRENT DRAW
- 40 MA (+12 V)
- 40 MA (-12 V)

ACCESSORIES
- OWNER'S MANUAL
- LEAFLET "USING THE UNIT SAFELY"
- EURORACK INSTALLATION SCREWS
- EURORACK POWER CABLE)

ROLAND SYSTEM-500 MODULE 530

DUAL VOLTAGE CONTROL AMPLIFIER

The 530 Dual VCA (voltage controlled Amplifier) features two independent voltage controlled amplifiers for controlling the loudness of audio signals. Each VCA has three sliders for an audio input mixer, three sliders to mix CV inputs, and a selector switch for linear or exponential response modes.



A SIG IN 1/2/3
These jacks input audio signals.

B INITIAL (INITIAL GAIN)
Adjusts the VCA's initial gain (the gain when there is no control voltage at all).

* If you want the VCA to operate only using a control voltage, be sure to set initial gain pot at 0 (Linear) or around 1 (Exponential) according to the setting of LIN/ EXP control mode.

C INDICATORS
These indicate the state of the output signal (load: green, overload: red).

D LIN/EXP CONTROL MODE
Specifies whether the control voltage and setting of the INITIAL knob affects the audio signal linearly or exponentially.

E SIG IN LEVEL CONTROLS
These sliders adjust the level of the signals that are input from the SIG IN jacks.

F OUT
These are output jacks. These jacks output the signal from each VCA.

G SUM
These jacks output a signal that sums the two VCA outputs.

H ATTENUATOR FOR CV INPUT
These sliders adjust the gain of the voltage that is input from the MOD IN KEY/2/3 jacks

I ATTENUATOR FOR CV INPUT
These sliders adjust the level of the voltage that is input from the MOD IN 1/2/3 JACKS.

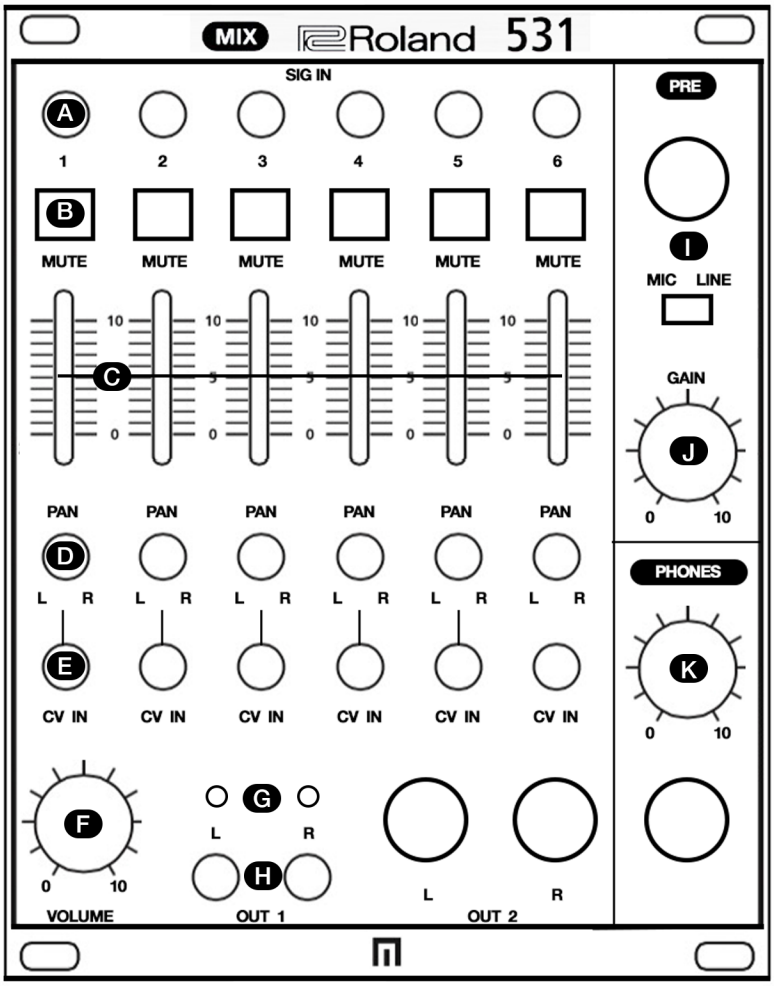
SPECIFICATIONS

CONTROLLERS	SIGNAL IN 1 SLIDER
	SIGNAL IN 2 SLIDER
	SIGNAL IN 3 SLIDER
	MODULATION IN 1 SLIDER
	MODULATION IN 2 SLIDER
	MODULATION IN 3 SLIDER
	LINER/EXPONENTIAL SWITCH
	INITIAL KNOB
INDICATORS	LOAD INDICATOR
	OVERLOAD INDICATOR
CONNECTORS	SIGNAL IN 1 JACK
	SIGNAL IN 2 JACK
	SIGNAL IN 3 JACK
	OUT JACK
	SUM JACK
	MODULATION IN 1 JACK
	MODULATION IN 2 JACK
	MODULATION IN 3 JACK
POWER SUPPLY	EURORACK POWER
CURRENT DRAW	50 MA (+12 V)
	35 MA (-12 V)
ACCESSORIES	OWNER'S MANUAL
	LEAFLET "USING THE UNIT SAFELY"
	EURORACK INSTALLATION SCREWS
	EURORACK POWER CABLE)

ROLAND SYSTEM-500 MODULE 531

MIXER

The SYS-531 has six high-quality inputs, each with level slider, pan knob, and mute button. A central hub for mixing mono or stereo (PRE only) signals.
The six pan knobs are CV controlled for interesting stereo effects. Stereo preamp for mic or line level signals. The headphone section, dedicated volume knob, output section for both 1/4”and 1/8” cables. LED level indicator.



A SIG IN 1-6
These jacks input the audio signals that will be mixed.

B MUTE SW 1-6
These switches mute (silence) each input.

C LEVEL CONTROL 1-6
These sliders adjust the level of the signals that are input from the SIG IN jacks.

D PAN 1-6
These knobs adjust the left/right proportion of volume.

E CV IN 1-6
Input voltage to these jacks to control pan from external source.

F VOLUME
This knob adjusts the volume that is output from OUT1 and OUT2.

G INDICATORS
These indicate the status of the output signal (unlit when loaded, lit when overloaded).

H OUT 1 - OUT 2
These are output jacks.
The same signal is output from OUT1 and OUT2.

I PRE SIG IN MODE SWITCH
Connect a mic or line-level device here.
If MIC mode is selected, the input signal is output to CH6.
If LINE mode is selected, the L signal is output to CH5 and the R signal is output to CH6.
If plugs are inserted into SIG IN 5 and 6, the signals of SIG IN 5 and 6 take priority.

J PRE GAIN
This knob adjusts the level of the signal that is input from the PRE SIG IN jack.

K PHONES OUT/VOLUME
You can connect headphones here and monitor the mixed signal. The knob adjusts the monitor volume.

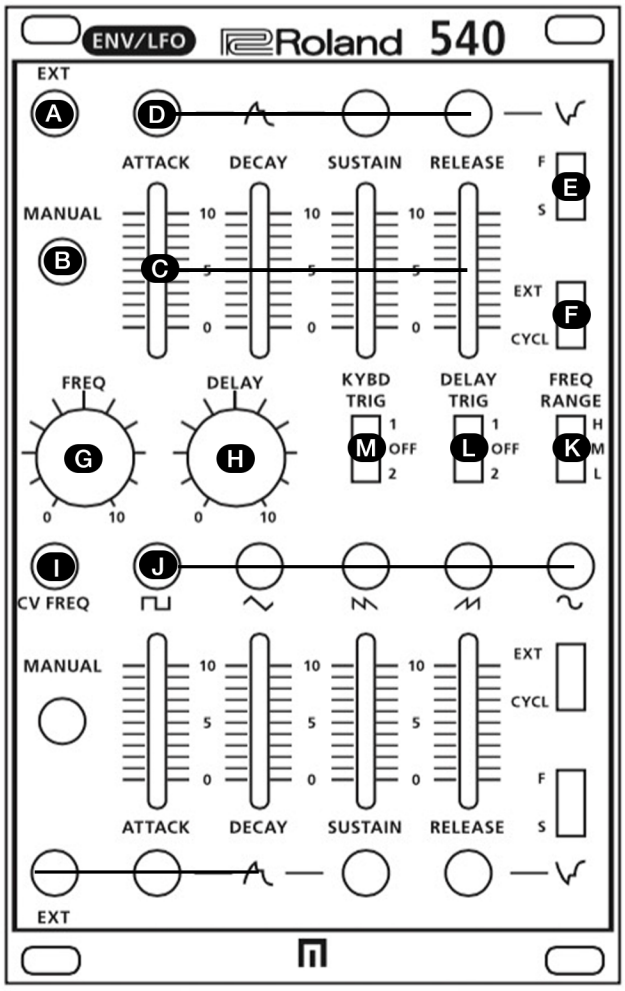
SPECIFICATIONS

CONTROLLERS	MUTE SWITCH (1–6) SIGNAL IN SLIDER (1–6) PAN KNOB (1–6) VOLUME KNOB MIC LINE SWITCH GAIN KNOB PHONES KNOB
INDICATORS	OVERLOAD INDICATOR L OVERLOAD INDICATOR R
CONNECTORS	SIGNAL IN JACK 1-6 CV IN JACK 1-6 OUTPUT 1 JACK L-R OUTPUT 2 JACK L-R PRE IN JACK PHONES JACK
POWER SUPPLY	EURORACK POWER
CURRENT DRAW	195 MA (+12 V) 165 MA (-12 V)
ACCESSORIES	OWNER'S MANUAL LEAFLET "USING THE UNIT SAFELY" EURORACK INSTALLATION SCREWS EURORACK POWER CABLE)

ROLAND SYSTEM-500 MODULE 540

DUAL ENVELOPE GENERATOR + LFO

The 540 Dual Envelope Generator and LFO (low frequency oscillator) is a multi-purpose modulation source. This unit features two independent ADSR (attack, decay, sustain, release) envelope sections that produce variable voltages for controlling other Eurorack format synthesizer modules such as oscillators, filters, and VCAs. Each section can be triggered externally, internally, or manually with dedicated jacks for each envelope, as well as an inverted output.
Additionally, the 540 includes a voltage controlled LFO with 5 waveform outputs. Front panel controls adjust both frequency and delay time of the LFO start. Delay and reset can be triggered from either envelope 1 or 2.



A EXT
If you want to turn the envelope generator on/off from an external source, use this jack to input a gate signal.

B MANUAL
Starting the envelope cycle.

C ATTACK, DECAY, SUSTAIN, RELEASE SLIDERS
These sliders specify attack time (the time over which the sound rises), decay time (the time over which the sound decays), sustain level (the level that is sustained after the envelope reaches the peak), and release time (the time over which the sound disappears after the signal input ends).

D OUTPUT JACKS
Output jacks. Outputting two positive waveforms and one negative waveform.

E F/S SWITCH
Switching the Envelope speed.
F - Fast
S - Slow

F GATE TRIGGER SWITCH
Starts the envelope cycle EXT and selects the external signal that will control it.
EXT - Trigger by EXT or MANUAL
CYCL - Self cycling by ATTACK and DECAY setting

G FREQ
Specifies the frequency of the LFO.

H DELAY
Specifies the time from when an input signal is received until the LFO starts operating.

I CV FREQ
If you want to use an external source to control the LFO frequency, input a voltage here.

J WAVE FORM
These jacks output the LFO signal as pulse, triangle, sawtooth, reverse sawtooth, and sine.

K FREQ RANGE
Selects the LFO oscillating frequency.

L DELAY TRIG
Reset LFO delay trigger w/ envelope 1 or 2.

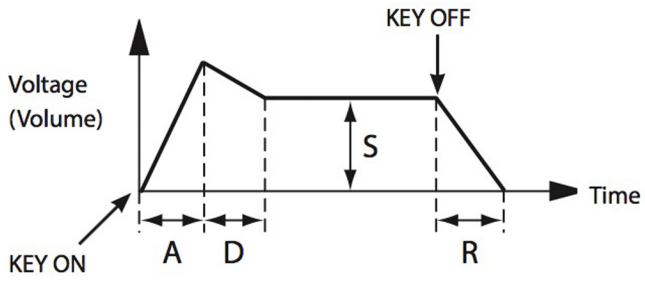
M KYBD TRIG
RESET LFO waveform by envelope 1 or 2.

SPECIFICATIONS

CONTROLLERS	ATTACK SLIDER
	DECAY SLIDER
	SUSTAIN SLIDER
	RELEASE SLIDER
	MANUAL SWITCH
	FAST/SLOW SWITCH
	EXTERNAL/CYCLE SWITCH
	KEYBOARD TRIGGER SWITCH
	DELAY TRIGGER SWITCH
	FREQUENCY RANGE SWITCH
	FREQUENCY KNOB
	DELAY KNOB
CONNECTORS	EXTERNAL JACK
	ENVELOPE 1 JACK
	ENVELOPE 2 JACK
	INVERTED ENVELOPE JACK
	CV FREQUENCY JACK
	SQUARE WAVE JACK
	TRIANGLE WAVE JACK
	SAW WAVE JACK
	INVERTED SAW WAVE JACK
	SINE WAVE JACK
POWER SUPPLY	EURORACK POWER
CURRENT DRAW	85 MA (+12 V)
	50 MA (-12 V)
ACCESSORIES	OWNER'S MANUAL
	LEAFLET "USING THE UNIT SAFELY"
	EURORACK INSTALLATION SCREWS
	EURORACK POWER CABLE)

ROLAND SYSTEM-500 MODULE 540

ABOUT ENVELOPE GENERATOR AND LFO



ABOUT ENV (ENVELOPE GENERATOR) AND LFO (LOW FREQUENCY OSCILLATOR)

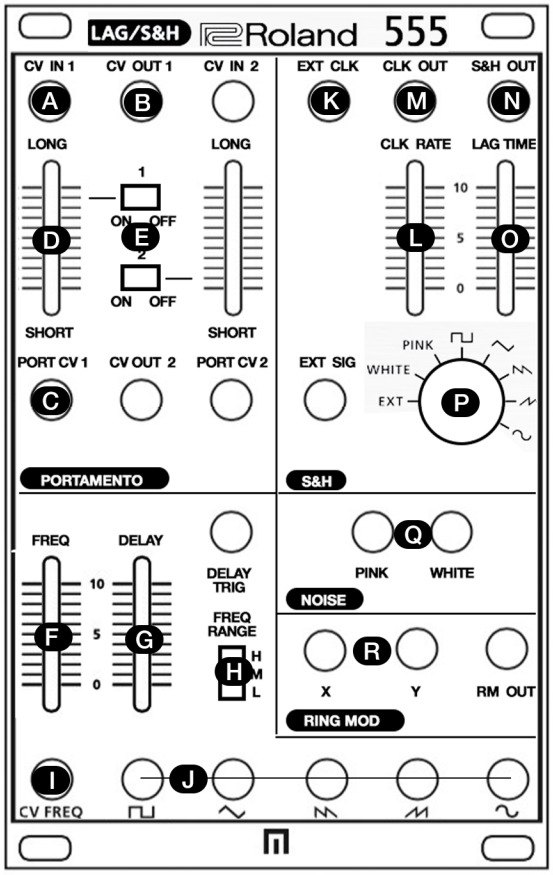
An envelope generator produces a time-varying voltage according to the attack (A), decay (D), sustain (S), and release (R) settings; you can use this voltage to control the sound's character or volume over time.

An LFO produces a cyclically changing voltage according to its settings; you can use this voltage to produce effects such as vibrato or tremolo.

ROLAND SYSTEM-500 MODULE 555

DUAL VOLTAGE CONTROL FILTER

The SYS-555 contains both traditional and non-traditional modulation sources. Offering ring modulation, sample and hold with seven waveforms and internal LPF, pink and white noise modes, LFO with internal ENV and VCA, and two CV controlled portamento circuits.



A PORTAMENTO CV IN 1/2
Input point for the signals to which to apply portamento.

B PORTAMENTO CV OUT 1/2
Output the waveform with portamento applied.

C PORTAMENTO CV 1/2
These jacks input a voltage used to control LONG / SHORT from an external source.

D LONG / SHORT
These sliders adjust the amount of portamento.
As the slider approaches SHORT, the signal approaches the original waveform

E ON / OFF
These switches turn portamento on/off.

F LFO FREQUENCY
Specifies the frequency of the LFO.

G LFO DELAY
When a signal is input to DELAY TRIG, the output amplitude from the LFO temporarily becomes 0, and gradually returns to its original amplitude according to the setting of the DELAY slider.

H LFO FREQUENCY RANGE
This switch specifies the LFO's frequency range.

I LFO CV FREQUENCY
This jack inputs a voltage used to control the LFO's frequency from an external source.

J LFO WAVEFORM
These jacks output a pulse wave, triangle wave, sawtooth wave, reverse sawtooth wave, and sine wave.

K S&H EXTERNAL CLOCK
Input a clock signal to this jack if you want to use a clock from an external source to hold the signal, instead of using the internal LFO.

L S&H CLOCK RATE
This slider specifies the frequency of the internal LFO that is used for HOLD. The frequency is indicated by the blinking of the LED.

M S&H CLOCK OUT
The CLK OUT jack output the clock signal of the internal LFO. If EXT CLK is being input, a clock signal is output at its frequency.

N S&H OUT
This jack outputs a voltage that is held from the input signal. By adjusting the LAG TIME you can smooth the changes in the CV waveform that is output.

O LAG TIME
S&H contains an internal LPF. The output signal goes through the LPF before it is output. This slider specifies the cutoff frequency of the LPF.

P SAMPLE SELECTOR
This switch selects the input signal (SAMPLE). You can choose from internally- generated pink noise, white noise, LFO output waveforms, or EXT SIG from an external source.

Q NOISE
The PINK jack outputs pink noise, and the WHITE jack outputs white noise.

R RING MOD
The waveforms of X and Y are multiplied and output from the RM OUT jack.

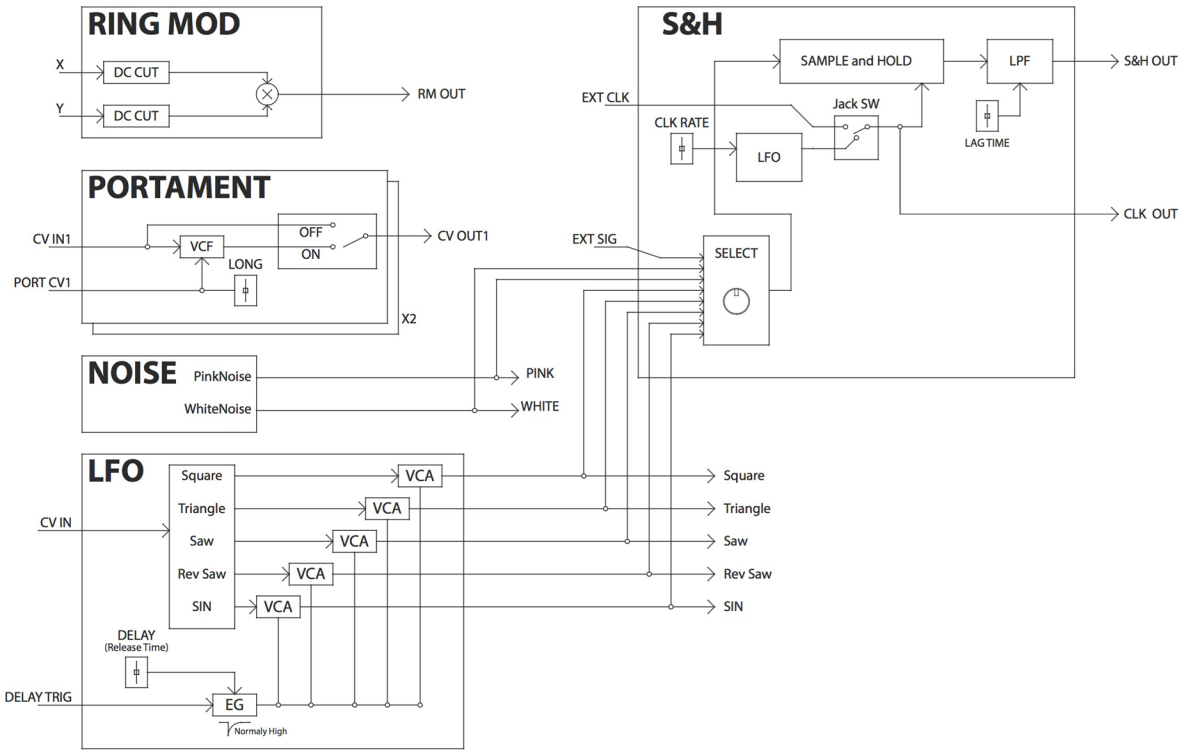
SPECIFICATIONS

CONTROLLERS	PORTAMENTO 1 SLIDER		SAMPLE & HOLD OUT JACK
	PORTAMENTO 1 SWITCH		EXTERNAL SIGNAL IN JACK
	PORTAMENTO 2 SLIDER		DELAY TRIGGER JACK
	PORTAMENTO 2 SWITCH		CV IN JACK
	CLOCK RATE SLIDER		SQUARE JACK
	LAG TIME SLIDER		TRIANGLE JACK
	SAMPLE & HOLD KNOB		SAW JACK
	FREQUENCY SLIDER		INVERTED SAW JACK
	DELAY SLIDER		SINE WAVE JACK
	FREQUENCY RANGE SWITCH		PINK & WHITE NOISE JACKS (2)
INDICATORS	PORTAMENTO 1 INDICATOR		RING MOD X, Y, OUT IN JACKS (3)
	PORTAMENTO 2 INDICATOR	POWER SUPPLY	EURORACK POWER
	CLOCK RATE INDICATOR	CURRENT DRAW	110 MA (+12 V)
CONNECTORS	CV IN 1 & 2 JACK		85 MA (-12 V)
	CV OUT 1 & 2 JACK	ACCESSORIES	OWNER'S MANUAL
	PORTAMENTO CV IN1 & 2		LEAFLET "USING THE UNIT SAFELY"
	EXTERNAL CLOCK IN JACK		EURORACK INSTALLATION SCREWS
	CLOCK OUT JACK		EURORACK POWER CABLE

ROLAND SYSTEM-500 MODULE 555

DUAL VOLTAGE CONTROL FILTER

BLOCK DIAGRAM



ABOUT SAMPLE AND HOLD

S&H is a function that remembers (samples) an input signal and maintains (holds) its level as specified by a clock signal. As the input signal, the S&H of the SYS-555 can use its own LFO output waveform, pink noise, white noise, or the EXT SIG input signal. It holds this input signal as specified by the internal clock signal of the S&H or an EXT CLK.

By combining various input signals and clock signals, you can create a CV that is unpredictable yet has regularity.

By adjusting the LAG TIME you can smooth the changes in the CV that is output.

ABOUT LFO

The LFO of the 555 can output five types of waveform, and also contains a delay function.

When a signal enters the DELAY TRIG jack, the output amplitude from the LFO temporarily becomes 0, and gradually returns to the original amplitude according to the setting of the DELAY slider.

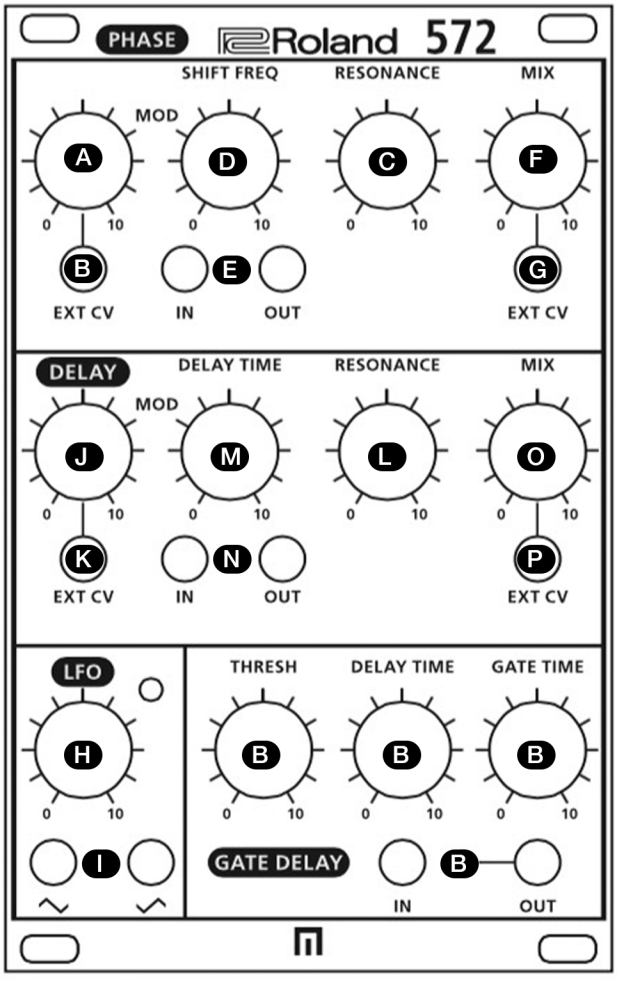
By using this in conjunction with the VCO, you can create delayed vibrato in which vibrato is applied a little while after the sound begins.

ROLAND SYSTEM-500 MODULE 572

PHASE SHIFTER + DELAY + LFO

The 572 Phase Shifter, Delay and LFO is a time-based, multi-effects module. The 572 includes a five-stage phase shifter, analog audio delay, a control voltage gate delay, and an LFO. The phase shifter has panel controls for shift frequency and resonance amount that can vary from subtle to a deep, lush analog effect. Similarly, the audio delay has independent knob control of delay time and r esonance (or feedback) for short chorus-like modulation delays. Both the phase shifter and delay can be modulated by the 572's internal LFO or external CV signals and feature wet/dry effects mix controllable via the front panel or with CV.

The LFO section has a knob for controlling frequency and features both normal and inverted output jacks. The gate delay has knobs to control threshold, delay time, and gate time for modifying incoming gate signals from other modules.



PHASE SHIFTER

A MOD
specifies how much the center frequency of the phase shift will change.
* At the "0" position, the center frequency does not change; the frequency is fixed at the setting of "SHIFT FREQ." At the "10" position, the frequency changes at the proportion of one octave per volt.

B EXT CV
If you want to use an external source to control the center frequency of the phase shift, input a voltage to this jack.
* If nothing is connected to this jack, the center frequency changes according to the output of the LFO

C RESONANCE
Adjusts the amount of feedback that accentuates the phase shift effect.

D SHIFT FREQ
Specifies the center frequency of the phase shift.

E IN/OUT
These jacks are the source input to and the output from the PHASE SHIFTER section.

F MIX
Adjusts the balance between the source and the phase shift effect.

G EXT CV
If you want to use an external source to control the balance between the source and the phase shift effect, input a voltage to this jack

LFO

H FREQUENCY
Specifies the frequency of the LFO. The frequency of the LFO is shown by the indicator located beside the knob.
* If nothing is connected to the "MOD- EXT CV" jack of the PHASE or DELAY, the LFO changes at the rate specified by FREQUENCY.

I LFO OUT
These jacks output the frequency specified by FREQUENCY as a triangle wave and an inverted triangle wave.

DELAY

J MOD
Specifies the amount by which the delay changes.
* At the "0" position, the delay time is fixed at the "DELAY TIME" setting. At the "10" position, the maximum change in delay time occurs.

K EXT CV
If you want to use an external source to control the delay time, input a voltage to this jack.
* If nothing is connected to this jack, the amount of delay changes according to the LFO OUT.

L RESONANCE
Adjusts the amount of feedback that accentuates the delay effect. By adding feedback with a short delay time, you can obtain a flanger effect.

M DELAY TIME
Specifies the delay time.
* 572 has BBD (Bucket Brigade Device). The longer the delay time the more noisy its clock repeats. You can use 521 LPF to reduce or eliminate the clock noise.

N IN/OUT
These jacks are the source input to and the output from the DELAY section.

O MIX
Adjusts the balance between the source and the delay sound.

P EXT CV
If you want to use an external source to control the balance between the source and delay sound, input a voltage to this jack.

GATE DELAY

Q THRESH
Specifies the voltage level that is output by the delay gate.

R DELAY TIME
Specifies the delay time of the gate.

S GATE TIME
Specifies the length of the gate (release time).

T GATE IN/OUT
These jacks input and output the gate signal.

SPECIFICATIONS

CONTROLLERS	MODULATION KNOB		OUT JACK
PHASE SHIFTER	SHIFT FREQUENCY KNOB		MIX EXTERNAL CV JACK
	RESONANCE KNOB	DELAY	MODULATION EXTERNAL CV JACK
	MIX KNOB		IN JACK
DELAY	MODULATION KNOB		OUT JACK
	TIME KNOB		MODULATION EXTERNAL CV JACK
	RESONANCE KNOB	LFO	OUT JACK
	MIX KNOB		INVERTED OUT JACK
LFO	FREQUENCY KNOB	GATE DELAY	IN JACK
GATE DELAY	THRESHOLD KNOB		OUT JACK
	DELAY TIME KNOB	**POWER SUPPLY**	EURORACK POWER
	GATE TIME KNOB	**CURRENT DRAW**	110 MA (+12 V)
INDICATOR	LFO INDICATOR		90 MA (-12 V)
	GATE DELAY OUT INDICATOR	**ACCESSORIES**	OWNER'S MANUAL
CONNECTORS	MODULATION EXTERNAL CV JACK		LEAFLET "USING THE UNIT SAFELY"
PHASE SHIFTER	IN JACK		EURORACK INSTALLATION SCREWS
			EURORACK POWER CABLE)