

Control

Function – Bank A enables display of currently changing pot value.

Function – Bank B displays scrolling message: “rsf polykobol II 8 voice programmable polyphonic synthesizer touch sensitive keyboard digital poly-sequencer digital micro-cassette”, along with lots of flashing of the front panel LEDs.

Function – Prog # loads one of eight “patch presets” into both patch buffers, along with parms like split point.

Function + Record – Prog # saves both patch buffers, along with parms like split point in one of eight “patch presets”.

Punch then Cancel performs tape initialization operation (prepares a blank tape for use with synth, each side must be done before use)

Load plus 1-8 may load all 32 patches of selected set (space for 8 sets on each side of the tape)

Not sure what Load plus A-D plus 1-8, then 1-8 does. Seems like tape code can only load all 48 patches.

Punch plus 1-8 may save all 32 patches in selected set

Not sure what Punch plus A-D plus 1-8, then 1-8 does. Seems like tape code can only save all 48 patches.

Record then Rel Off saves current VCF release value as “Rel Off” value and exits record mode.

Enabling Rel Off saves current VCF release value and sets it to “Rel Off” value.

Disabling Rel Off restores saved VCF release value.

Pitch enables or disables the pitch wheel for each half of the split.

LFO Sync synchronizes the two LFO’s to each other.

If Lower is selected, Record then VCO2 detune enables VCO2 Freq pot to set Lower VCO2 detune value.

If Upper is selected, Record then VCO2 detune enables VCO2 Freq pot to set Upper VCO2 detune value.

Record then Upper Detune enables VCO2 Freq pot to set Upper detune value.

Function + Unison selects between “Unis” and “Adap” if in Unison mode, or between “Poly” and “Roll” if not in Unison mode. Then displays current mode.

To control a front panel switch with a foot switch, press and hold the switch to be controlled, then press and release Foot Sw 1 or 2, then release the switch to be controlled. Now a foot switch plugged into the rear panel should have the same function as the front panel switch.

To use the keybed pressure to control the amount of a modulation source, turn on Pressure using the front panel switch. Set the mod wheel to the full minimum position. Enable Wheel next to the desired

modulation source. The pressure value takes the place of the mod wheel to control the modulation amount.

In Adap mode, press and hold one key. All available voices play this key. Now press and hold a second key. One voice stays on the first key, the other available voices switch to the newer key. Now press and hold a third key. One voice stays on the first key, one voice stays on the second key, and the other available voices switch to the newer key.

In Unis mode, all available voices play the last key pressed, regardless of how many keys are pressed.

Poly mode steps through voices sequentially if keys are pressed one at a time, but if the same key is pressed again, the voice that was used for it before will be used again.

Roll mode steps through voices sequentially if only one key is pressed at a time and keys are not repeated. If a key is repeated, it is not assigned to the next sequential voice. Instead, it is assigned to one of the recently used voices, but the assignment order for non-repeated keys is not changed. Not sure this was intended.

Function + Cancel sends a command to the key assigner to select UpLo mode. In this mode, the key assigner sends keys above the split point to lower voices, and keys below the split point to upper voices. This increases the number of different voice splits that can be achieved. Displays "UPLO" to indicate swap.

It seems that either velocity (if implemented) or aftertouch pressure can be used for modulation, but not both at once in the same region. If pressure is not enabled for upper, then velocity can be used for upper. It should be possible to enable pressure for upper and velocity (if implemented) for lower.

Tape Messages

The following messages may be displayed after a tape operation is requested:

- 1) "Play" indicates no error was detected during the tape operation.
- 2) "Prtd." Indicates that the minicassette mechanical write protection is active. May be displayed after an attempt to initialize or punch/write to the tape.
- 3) "bad " After a punch operation is performed, the data is read from the tape and compared to RAM. If it doesn't match, this message will be displayed.
- 4) "Fail" When attempting to read data from the tape, if the CPU times out waiting for the read clock signal, this message will be displayed. Read clock is generated as long as any data is being read from the tape.
- 5) "notP" indicates that no tape is in the tape unit when a tape operation is requested.

Key assigner

When split mode switch is pressed, if we are currently in split mode, we save the split point and exit split mode. If we are not currently in split mode, if a key is pressed, we use that to set the split point and enable split mode. If no key is pressed, we restore the saved split point and enable split mode. The saved split point is set to middle C at power-up.

If transpose switch is pressed, we check Upper/Lower setting first. If a key is pressed, we use it to set the transposition for the selected region. If no key is pressed and transposition is 0, we restore saved

value. If it's not 0, we save the value, and set it to 0. The transposition saved values are set to 0 at power-up.

Arp octave switch always enables four octave range and cannot be changed.

Pressing chord switch flips the chord enable on or off for the selected region. If chord mode is now enabled for either region, the code converts currently pressed keys into offsets from lowest pressed key, and saves them for currently selected upper/lower region.

If not in split mode, but Upper is selected, all keys pressed are sent to available upper voices. If Upper is not selected, all keys pressed are sent to available lower voices.

There are three "groups" of voices: A: 1-4, B: 5-7, and C:8. It appears that voices 1-4 are always assigned to lower and cannot be changed. When a voice select switch in group B or C is pressed, if that voice is currently a lower voice, all voices in its group are switched to being upper voices. If that voice is currently an upper voice, all voices in the same group are switched to being lower voices. If the selected voice is not currently enabled for either upper or lower, if any voices in its group are enabled for upper, all voices in the group are now enabled for upper. If no voices in the group are enabled for upper, all voices in the group are now enabled for lower.

Since voices 1-4 are always controlled by the lower control CV and digital control signals, it would seem, that they must always be used for lower keys in split mode. But this is not true. A special mode can be activated by pressing Function, then Cancel. The display will show "UpLo". In this mode, the key assigner sends notes higher than the split point to the Lower voices, and notes lower than the split point to the Upper voices. So in this mode, it is possible to have 7 Upper voices and 1 Lower voice, if desired. Editing a parameter with Lower selected will still edit the patch in the Lower patch buffer, but will affect keys above the split point. Likewise, editing a parameter with Upper selected will still edit the patch in the Upper patch buffer, but will affect keys below the split point.

To use "hold/latch" function. Press and hold Lock switch. Press and release keys, maybe only one at a time. Note will continue to play after each key is released. Release Lock switch. If Arp is now enabled, all notes will stop playing, and then will be played one at a time by the arpeggiator. Press and release Lock switch to clear held keys.