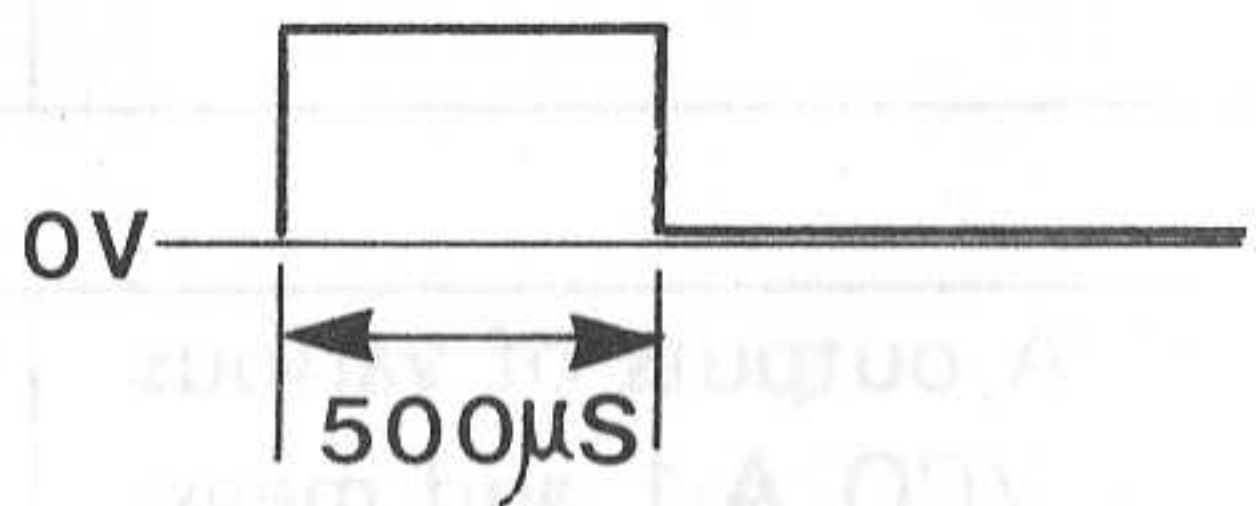
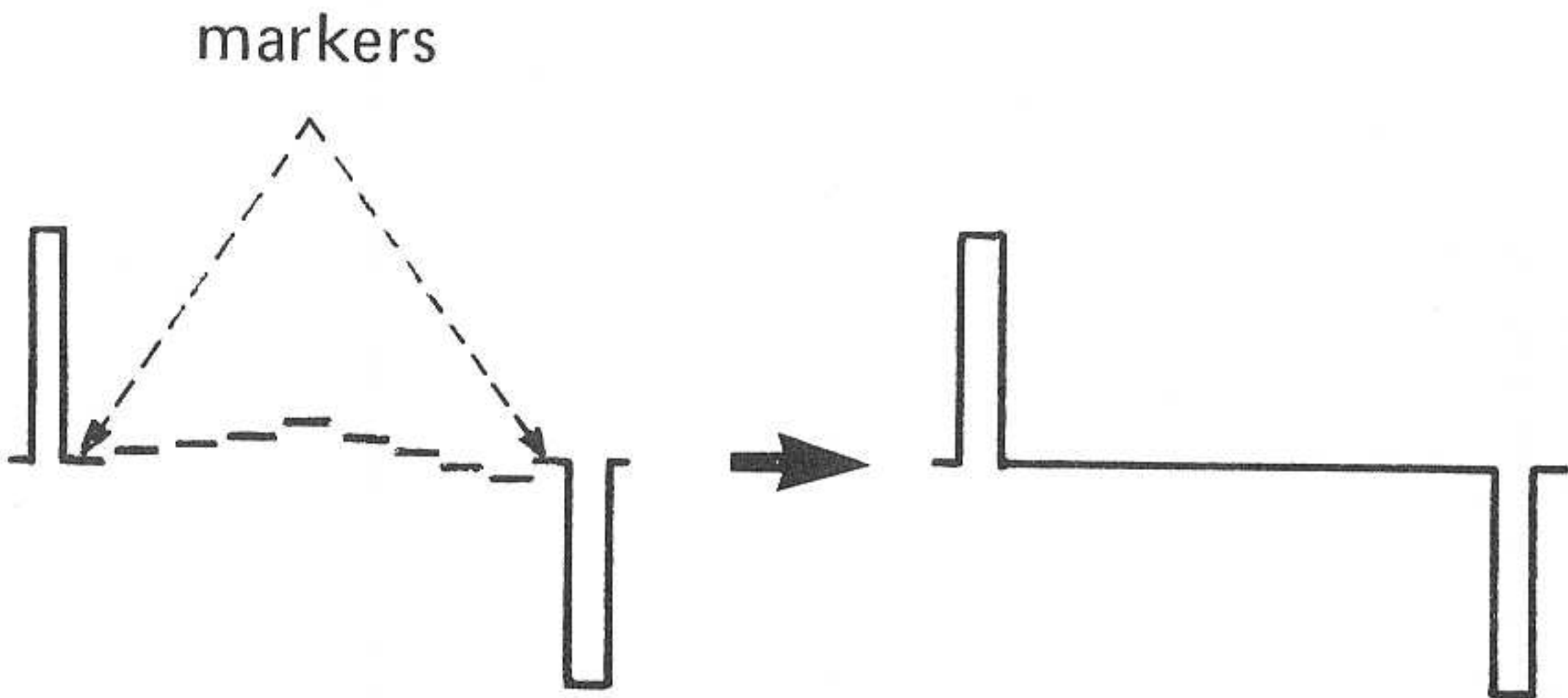
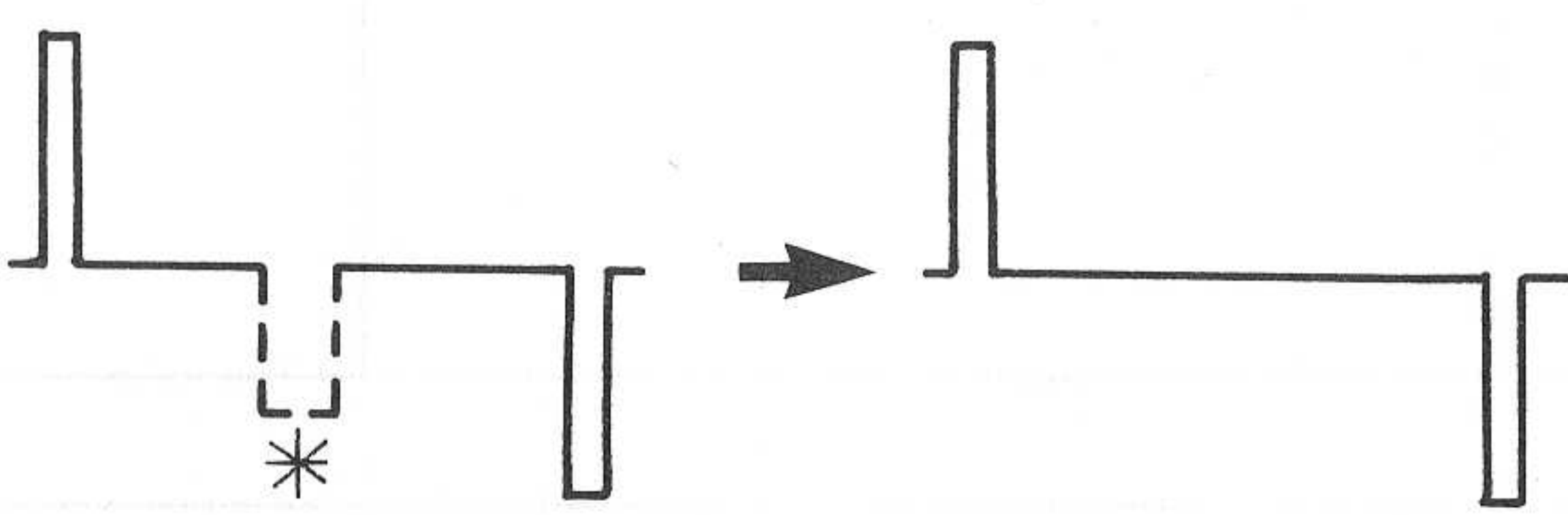


PANEL SETTINGS	ADJUST	PROGRAM FUNCTION	WHAT ADJUSTED/DESCRIPTION
<b>6. PW</b> PANEL MODE UPPER (2 VOICE) LOWER (4 VOICE)  BANK/NUMBER <b>C-1 (VR4A)</b> <b>C-2 (VR6A)</b> <b>C-3 (VR4B)</b> <b>C-4 (VR6B)</b> <b>C-5 (VR4C)</b> <b>C-6 (VR6C)</b> <b>C-7 (VR4D)</b> <b>C-8 (VR6D)</b> OSCILLOSCOPE TRIG: MANUAL H: 0.1ms/cm V: 500mV/cm AC Coupling	1. Connect the scope to OUTPUT JACK or R21 (JACK BOARD). 2. Adjust VR4 (VR6) (PW) for the 500μs pulse length.  	Apply predetermined control voltages (frequency, PW) to the VCO.	Pulse width to the specified duty ratio.

<b>7. LINEARITY</b>			
PANEL MODE UPPER (2 VOICE) LOWER (4 VOICE)  BANK/NUMBER <b>D-1 (VR3A)</b> <b>D-2 (VR5A)</b> <b>D-3 (VR3B)</b> <b>D-4 (VR5B)</b> <b>D-5 (VR3C)</b> <b>D-6 (VR5C)</b> <b>D-7 (VR3D)</b> <b>D-8 (VR5D)</b> OSCILLOSCOPE H: 0.1ms/cm V: 500mV/cm AC Coupling	1. Connect the scope between TP-3 and TP0 (GND). 2. Adjust VR3 (VR5 LINEARITY) for straightness by aligning signals to the markers. Increase V sensitivity for fine adjustment. Press the BANK/NUMBER button again when the detune is too great for adjustment.	Enable Compu-Tune feature (for WIDTH and FREQ) upon pressing BANK/NUMBER, then apply control voltages to the VCO in 8 steps. Measuring the result frequency, present detune data at TP-3.	Linearity of VCO.
			

<b>8. X MOD</b>			
PANEL MODE UPPER (2 VOICE) LOWER (4 VOICE)  BANK/NUMBER <b>E-1 (VR7A)</b> <b>E-2 (VR7B)</b> <b>E-3 (VR7C)</b> <b>E-4 (VR7D)</b> OSCILLOSCOPE H: 0.1ms/cm V: 500mV/cm AC Coupling	1. Connect the scope between TP-3 and TP0 (GND) of MOD BOARD. 2. Adjust VR7 (X MOD) for flattening the part (*) as shown in Fig. 7.	Synchronize the VCO-2 with the VCO-1, then apply the VCO-2 output (amount equal to that when CROSS MOD MANUAL is 5) to the VCO-1. Present at TP-3 the difference between an ideal and the actual VCO-1 output frequencies.	Prevention of unfavorable modulation signals.
			
Note: The part can be a positive going pulse.			

<b>BENDER BOARD</b>			
<b>1.</b>			
BANK/NUMBER <b>F-1 (VR1)</b> <b>F-2 (VR2)</b> OSCILLOSCPE H: 0.1ms/cm V: 500mV/cm AC Coupling	1. Connect the scope between TP-3 and TP-0 of either MOD BOARD. 2. Adjust VR1 (VR2) in the same manner as in 8. X MOD.  The BENDER lever must be at the neutral position.	Present at TP-3 the difference between the frequencies from the VCO while placing a ground intermittently to the BEND IN of the VCO.	BENDER output to 0.



**NOTE:** Designations for extension-lines VRs and TPs shown below are applicable to all PCB revisions.  
Some PCBs have wrong designation(s).

