

## 8. ADJUSTMENT PROCEDURE

**Caution:** This unit has been precisely adjusted at the factory before shipment. Therefore, absolutely do not turn any of the variable resistors other than those required for servicing. Testing and adjustment should be performed only after allowing the unit to warm up for ten minutes. Variable resistor locations are marked on separate charts.

\* The following are required for the test procedures:

Digital voltmeter (DVM) 4-1/2 digit  
 Oscilloscope  
 Tuner Korg WT-12, etc.  
 Audio amp and speaker, or headphones.

1. Please check the following before proceeding.

- 1) Check all connections to make sure they are correct and secure.
- 2) Check memory back-up battery voltage. KLM-367 circuit board battery voltage should be 3.60V~4.10V.

2. Power supply check and adjustment (KLM-376). Use a DVM to check the following test point (TP) voltages. (Obtain ground in front of LED.):

- 1) +15V for TP-J7. Adjust VR3 to obtain +15.000V  $\pm$ 50mV.
- 2) -15V for the right side of TP-R18. Confirm -15.000 mV  $\pm$ 300mV.
- 3) +5V for TP-J2. Adjust VR2 to obtain +5,000  $\pm$ 10mV.
- 4) -5V for TP-J1. Adjust VR1 to obtain -5.000V  $\pm$ 10mV.

3. KLM-367 check and adjustment.

(1) Reset circuit.

With controls at the normal setting (fig. 1), connect a dummy 56kohm 2P (2-pin) connector to the KLM-376 2P plug (male). If connector not available attach 56K resistor with small test clips (E-Z-Hook or Similar)

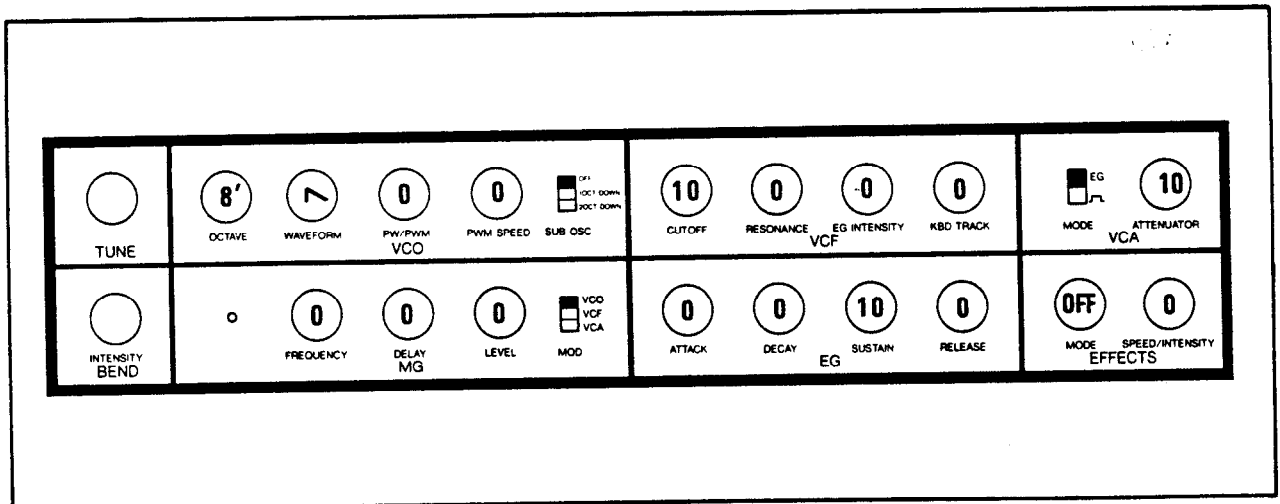


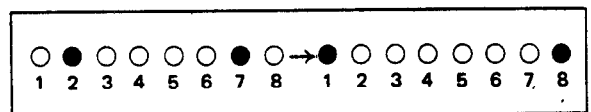
Fig. 1 Normal setting.

- 1) Turning VR1 from the counterclockwise position towards the clockwise direction, adjust so that the BANK A~D, MANUAL, TAPE ENABLE, and PROGRAM 1 ~ 8 LEDs all light up (instead of only BANK A and PROGRAM 1).
- 2) Confirm that only the BANK A and PROGRAM 1 LEDs light up when you remove the 56kohm 2P connector.

~~2. D/A adjustment.~~

- 1) Set MANUAL to ON, CUTOFF to 10, and EFFECT INTENSITY to 0.
- 2) Set circuit board SW1 to TEST position.
- 3) Confirm that PROGRAM LEDs 1 & 8 alone light up when the TAPE SW is switched back and forth from DISABLE to ENABLE and back to DISABLE.
- 4) If LEDs other than 1 and 8 light up, adjust VR6 (offset) and VR7 (width) so that only 1 & 8 light up.

- 5) Turning VR7 clockwise, adjust so that the lit LEDs shift to 1 & 8. In the shift from 2 & 7 to 1 & 8 there may be some time lag between the two. If this is very large, adjust VR6 to minimize it.



- 6) Switch the circuit board SW1 to the NORMAL position. Confirm that LEDs 1 & 8 remain lit up without any change.
- 7) Confirm that output DC click noise is within 6Vp-p when power is switched off.
- 8) Turn power on and confirm that the BANK A and PROGRAM 1 LEDs light up.