

## 3-4. ADJUSTMENT PROCEDURE FOR PHASE MODULATOR CIRCUIT

Be sure to carry out the aging operation continuously for more than 5 minutes before adjustment. (The purpose of this aging operation lies in correct adjustment of the phase modulator circuit.)

Set QS-1 as follows prior to starting adjustment.

- 1. FUNCTION ......CONCERT HALL 1
- 2. 4-CH. TAPE MONITOR .....SOURCE
- 3. 2-CH. TAPE MONITOR .....SOURCE
- 4. MAIN BALANCE .....CENTER
- 5. REAR BALANCE ......CENTER
- 6. Turn VR<sub>901</sub> and VR<sub>902</sub> on F-1327-1 (F-1327, F-1331), also VR  $_{903},$  VR  $_{904}$  and VR  $_{905}$  on F-1328 counterclockwise.

## 1. Adjustment of REAR L-CH

- 1) Connect a DC voltmeter with the test point TP-1 of F-1327-1 (F-1327, F-1331) and adjust VR<sub>901</sub> of F-1327-1 (F-1327, F-1331) in such a way that the indicated value of the DC voltmeter is 60mV to 100mV.
- 2) Add the output of the audio signal generator (sine wave, 12KHz) to the L-CH of 2-CH INPUT and horizontal axis of an oscilloscope.
- 3) Change over the TIME/DIV of the oscilloscope to "EXT".
- 4) Connect the terminal REAR L-CH (OUTPUT, HIGH) of QS-1 with the vertical axis of the oscilloscope.
- 5) Adjust the VOLTS/DIV of the oscilloscope, VOLUME and LEVEL SET of QS-1 in such a way that such a waveform as shown in Fig. 3-1 appears

in the oscilloscope.

6) Adjust VR<sub>903</sub> (8Hz output adjustment) of F-1328 (8Hz oscillator) in such a way that such a symmetrical waveform as shown in Fig. 3-2 can be obtained.

## 2. Adjustment of REAR R-CH

- 1) Add the output of the audio signal generator (sine wave, 18KHz) to R-CH of 2-CH INPUT and the horizontal axis of the oscilloscope.
- 2) Change over the TIME/DIV of the oscilloscope to "EXT".
- 3) Connect the REAR R-CH (OUTPUT, HIGH) terminal of QS-1 with the vertical axis of the oscillo-
- 4) Adjust the VOLTS/DIV of the oscilloscope, VOLUME and LEVEL SET of QS-1 in such a way that such a waveform as shown in Fig. 3-3 appears in the oscilloscope.
- 5) As  $VR_{902}$  of F-1327-1 (F-1327, F-1331) is turned, the waveform in Fig. 3-4 is changed as indicated with an arrow mark  $\rightarrow$  e.g. 1, 2, 3, 4, 5 and 6.

Adjust  $VR_{902}$  to such a position that the waveform in 3 is maintained before turning to waveform in 4.  $(B/A \simeq 1/5)$ 

- 6) Turn VR<sub>904</sub> (for variation of frequency) of F-1328 up to its central position.
- 7) Turn VR<sub>905</sub> (for adjustment of beat output) of F-1328 gradually and adjust it in such a way that such a waveform as shown in Fig. 3-5 can be
- 8) Turn VR<sub>904</sub> of F-1328 slightly and adjust it in such a way that the cycle in change of waveform of ① and ② as shown in Fig. 3-5 is one second.

Fig. 3-2 Fig. 3-5 Fig. 3-3

