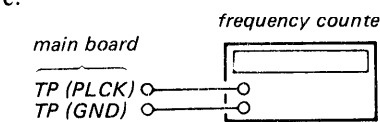


**ELECTRICAL ADJUSTMENTS**

1. Perform adjustments in the order given.
2. Use YEDS-1 disc unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.

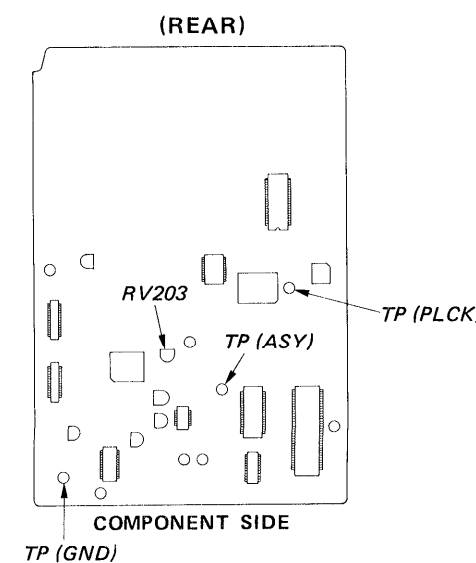
**RF PLL Frequency Adjustment/Lock Frequency Check**

**Procedure:**



1. Ground test point TP (ASY).
2. Connect the frequency counter to the test points TP (PLCK) and TP (GND).
3. Turn POWER switch on.
4. Adjust RV203 so that the reading on the frequency counter is 4.3218 MHz ± 30 kHz.  
... (RF PLL frequency adjustment)
5. Remove the grounding wire from TP (ASY).
6. Put the disc (YEDS-1) in and press button.
7. Confirm that the reading on the frequency counter is locked at 4.3218 MHz.

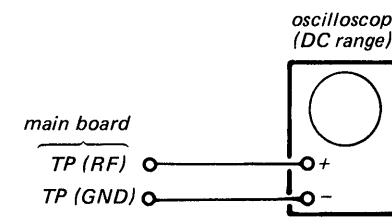
**Adjustment Location: main board**



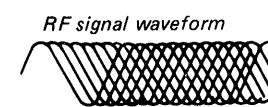
**Focus Bias Adjustment**

This adjustment should be made after replacing the Optical Pick-up Block.

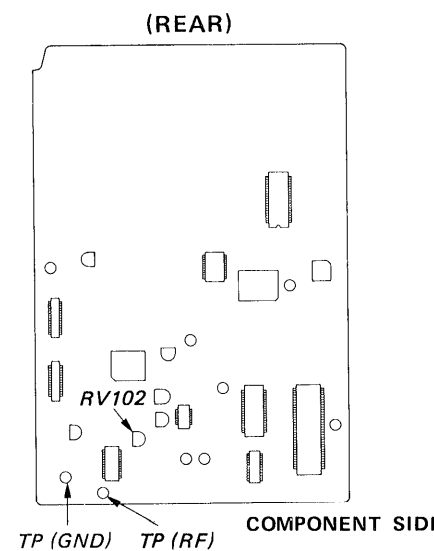
**Procedure:**



1. Connect oscilloscope to the test points TP (RF) and TP (GND).
2. Turn POWER switch on.
3. Put the disc (YEDS-1) in and press button.
4. Adjust RV102 for an optimum waveform eye pattern. Optimum eye pattern means that shape "C" can be clearly distinguished at the center of the waveform.



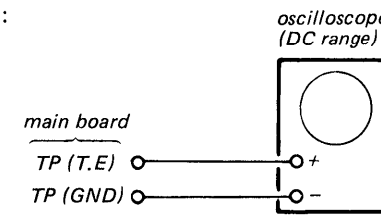
**Adjustment Location: main board**



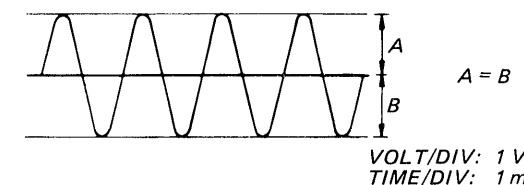
**E-F Balance Adjustment**

This adjustment should be made after replacing the Optical Pick-up Block.

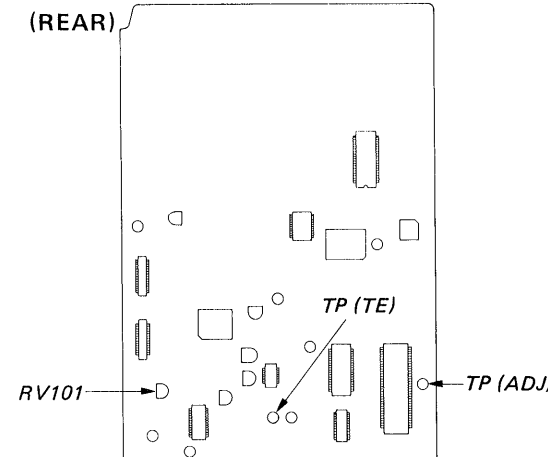
**Procedure:**



1. Connect the oscilloscope to the test points TP (T.E) and TP (GND).
2. Ground TP (GND) to set an adjustment mode.
3. Turn POWER switch on.
4. Put the disc (YEDS-1) in and press button.
5. Adjust RV101 so that the traverse waveform is symmetrical above and below.
6. After adjustment, cancel the adjustment mode.



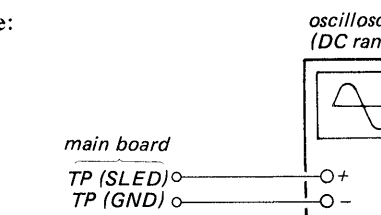
**Adjustment Location: main board**



**SLED MOTOR OFF-SET ADJUSTMENT**

This adjustment should be made after replacing the Optical Pick-up Block.

**Procedure:**



**REFERENCE**

**Focus/Tracking Gain Adjustment**

A frequency response analyzer is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, this adjustment is not recommended generally to be performed.

Focus/tracking gains determine the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

Symptoms	Gain	Focus	Tracking
● The time until music starts becomes longer for STOP → PLAY or automatic selection (◀▶ buttons pressed. (Normally takes about 2 seconds.)		low	low or high
● Music does not start and disc continues to rotate for STOP → PLAY or automatic selection (◀▶ buttons pressed.)		-	low
● Disc table opens shortly after STOP → PLAY.	low or high	-	-
● Sound is interrupted during PLAY. Or time counter display stops progressing.	-	-	low
● More poise during 2-axis device operation.	high	high	high

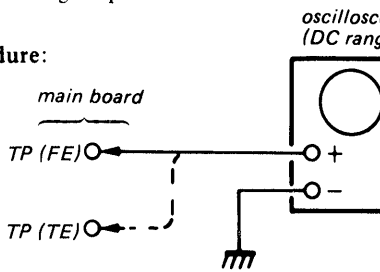
1. Keep the set flat.
2. Connect the oscilloscope to TP (SLED) and TP (GND).
3. Turn Power switch on.
4. Adjust RV204 so that the reading of the oscilloscope will be within ±50mV.

The following is a simple adjustment method.

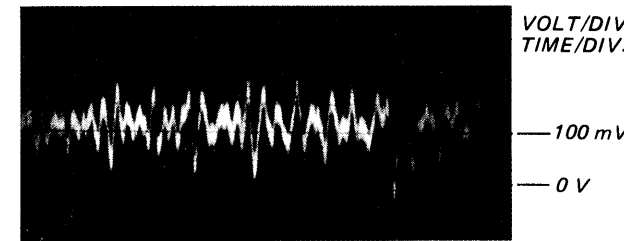
**Simple Adjustment**

**Note:** Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

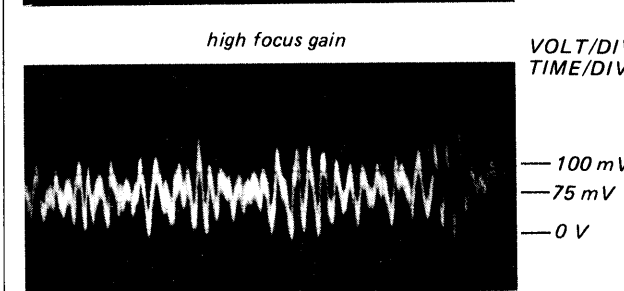
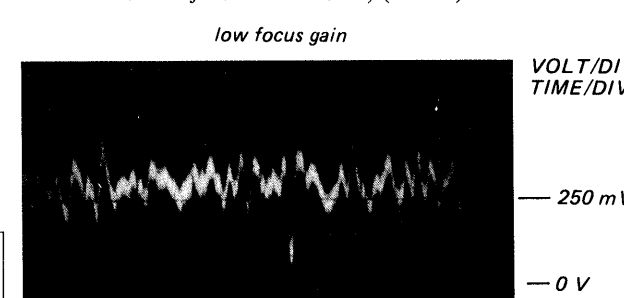
**Procedure:**



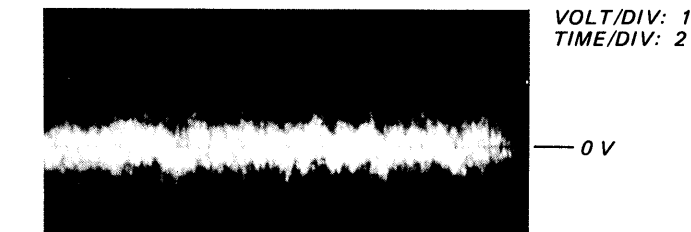
1. Keep the set flat. If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2 axis device.
2. Insert the disc (YEDS-1) and press button.
3. Connect the oscilloscope to TP (FE) and TP (GND).
4. Adjustment RV201 so that the waveform is as shown in the picture below. (focus gain adjustment)



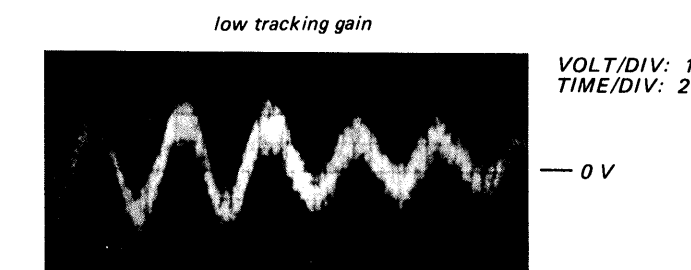
- Incorrect Examples (DC level is quite different from the adjusted waveform) (below)



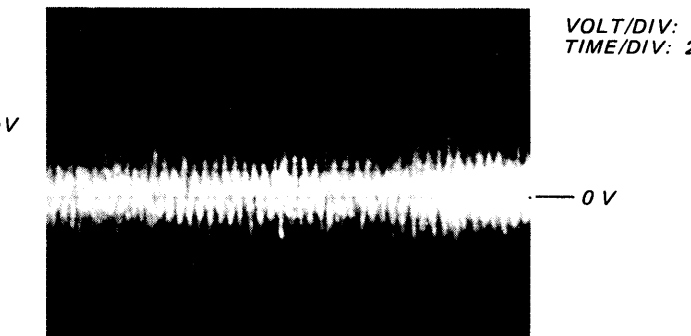
5. Connect the oscilloscope to TP (TE).
6. Adjust RV202 so that the waveform is as shown in the picture below. (tracking gain adjustment)



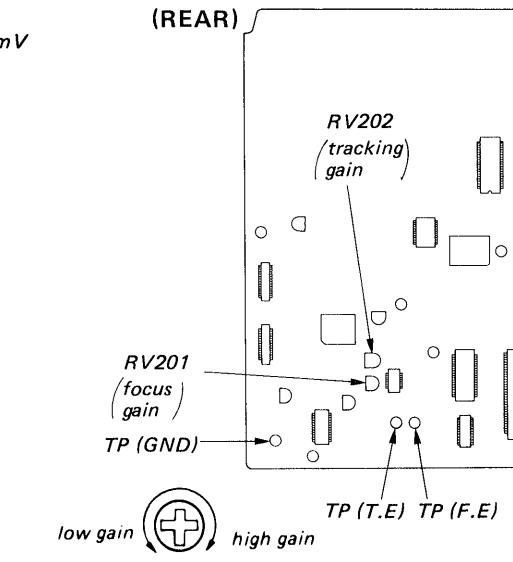
- Incorrect Examples (fundamental wave appears)



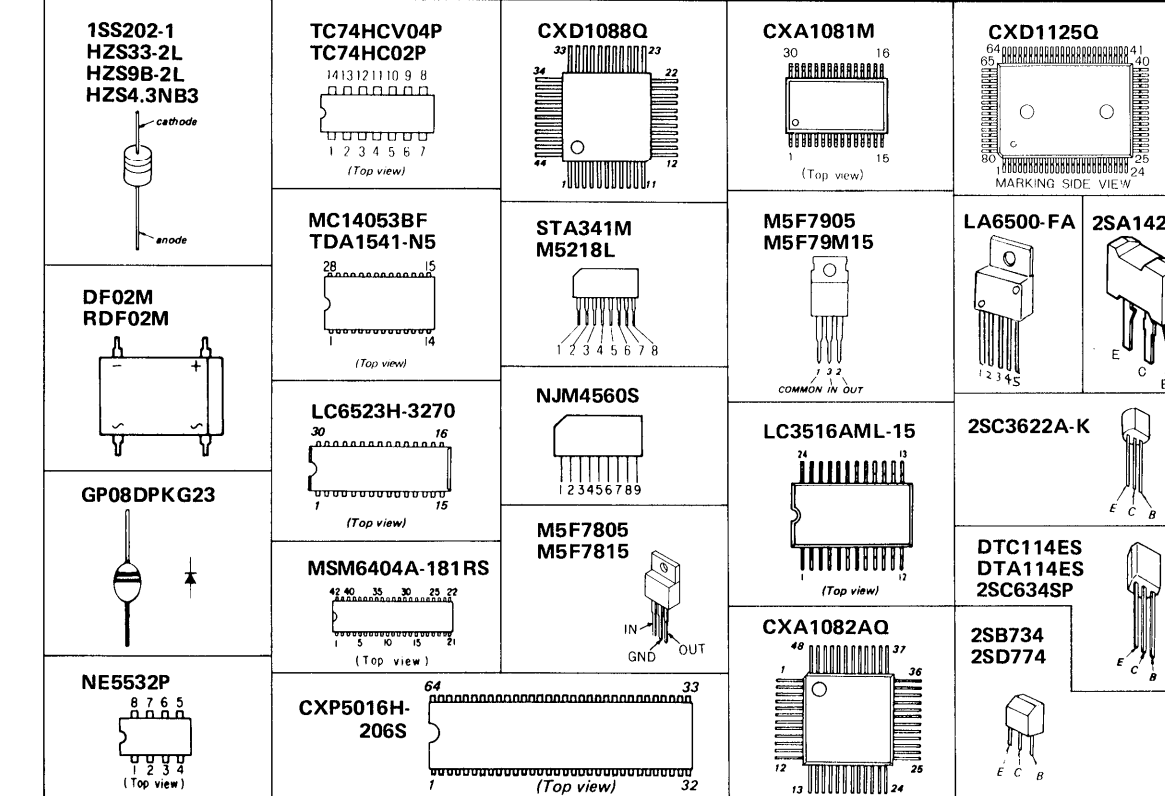
high tracking gain (higher frequency of the fundamental wave than above)



**Adjustment Location: main board**



● **Semiconductor Lead Layouts**



**CIRCUIT BOARD LAYOUTS**

