

# V. ELECTRICAL ADJUSTMENT

**Precautionary items prior to adjustments**  
 1. The color bar generator output should be 1.0 Vp-p  
 2. The video output terminal should be terminated with 75 ohms (connect dummy load or 75 ohms input TV.)

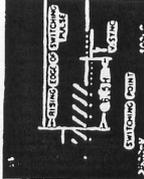
Required following test tapes.

Test tape	Parts No.
TF-527BL	AT-711880
TF-530RFS	AT-7511775
TF-532CBS	AT-751380

**STEP ADJUSTMENT ITEM**  
 1. MODE and INPUT SIGNAL / TEST TAPE  
 2. TEST POINT and ADJ part  
 3. REMARKS (v) & RESULT (u)

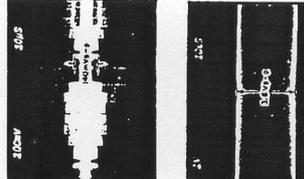
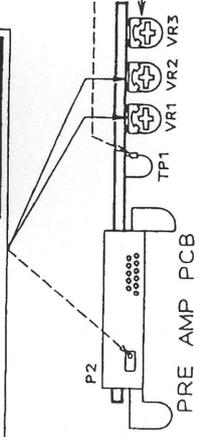
**1. PB SWITCHING POINT**

1. "PB" test tape TF-530RFS  
 2. TP1 (SWP), VIDEO OUT & VR301 (SW. POINT)  
 3. Connect an oscilloscope's CH-1 to TP1 (SWP) for triggering and CH-2 to VIDEO OUT  
 \* Adjust VR301 so that the switching point is positioned 6.5 H from the V-SYNC left edge as shown.



**6. VIDEO REC CURRENT**

1. "REC" PAL color bar signal  
 2. P2 (REC. CURR), JW188 (C. SYNC) & VR1 (REC-CHROMA), VR2 (REC-Y)  
 3. Connect an oscilloscope's CH-1 to P2 (REC. CURR) and CH-2 to JW188 (C. SYNC) for triggering.  
 \* Turn the VR2 (REC-Y) fully counterclockwise.  
 \* Adjust VR1 (REC-CHROMA) so that the chroma REC current becomes 140 mVp-p at the burst signal area.  
 \* Disconnect the input signal, then adjust VR2 (REC-Y) so that Y REC current becomes 3.6 Vp-p.

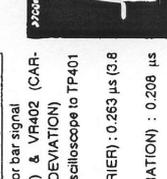
**7. VIDEO PB LEVEL**

1. "REC"-PB", PAL color bar signal  
 2. VIDEO OUT & VR404 (PB LEVEL)  
 3. Connect an oscilloscope to VIDEO OUT  
 \* Make some recording on the tape, then play it back  
 \* Adjust VR404 so that PB level becomes 1.0 Vp-p



**5. CARRIER SET & DEVIATION**

1. "REC", PAL color bar signal  
 2. TP401 (REC.Y) & VR402 (CARRIER), VR403 (DEVIATION)  
 3. Connect an oscilloscope to TP401 (REC.Y)  
 \* VR402 (CARRIER) : 0.263 μs (3.8 MHz)  
 \* VR403 (DEVIATION) : 0.208 μs (4.8 MHz)



**3. AUDIO REC BIAS**

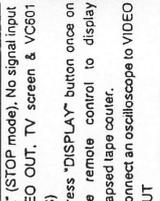
1. "REC", No signal input  
 2. P801 (pin, pin & VR801  
 3. Connect an AC voltmeter to P801 (pin (GND side) and pin.  
 (Do not connect the AC voltmeter's ground to the VCR's ground.)  
 \* Adjust VR801 so that the reading on the AC voltmeter becomes 2.4 mV

**2. AUDIO PB LEVEL**

1. "PB" test tape TF-527BL  
 2. AUDIO OUT & VR802  
 3. Connect AC voltmeter to AUDIO OUT  
 \* -5 dbS

**8. CHARACTER POSITION**

1. "E-E" (STOP mode). No signal input  
 2. VIDEO OUT, TV screen & VC601 (IMS)  
 3. Press "DISPLAY" button once on the remote control to display elapsed tape counter.  
 \* Connect an oscilloscope to VIDEO OUT  
 \* Adjust VC601 (IMS) so that right end of the IMS signal becomes 49 μs from the H-SYNC as shown.



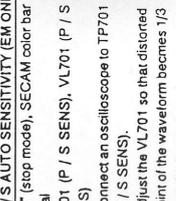
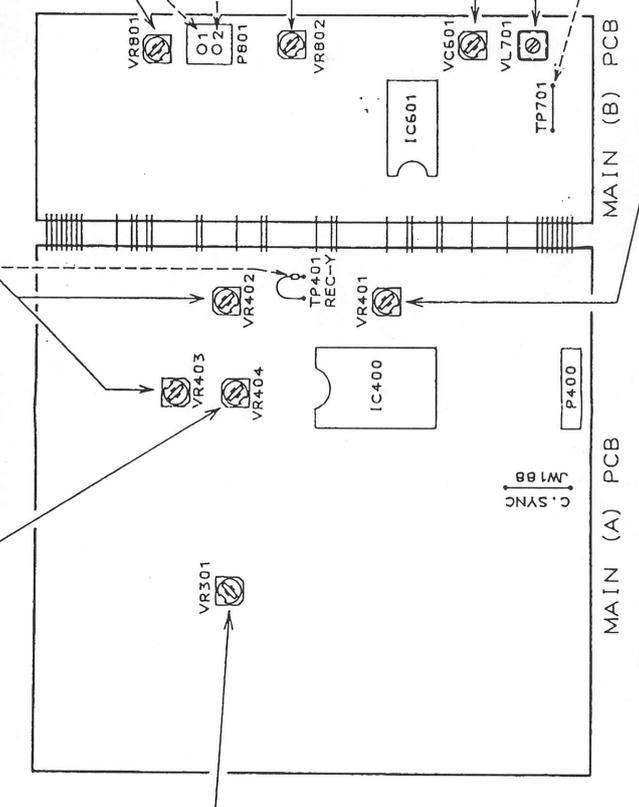
**4. VIDEO E-E LEVEL**

1. "E-E" (STOP mode), PAL color bar signal  
 2. TP701 (P / S SENS), VL701 (P / S SENS)  
 3. Connect an oscilloscope to TP701 (P / S SENS).  
 \* Adjust the VL701 so that distorted point of the waveform becomes 1/3 from the bottom as shown.



**9. P / S AUTO SENSITIVITY (EM ONLY)**

1. "E-E" (stop mode), SECAM color bar signal  
 2. TP701 (P / S SENS), VL701 (P / S SENS)  
 3. Connect an oscilloscope to TP701 (P / S SENS).  
 \* Adjust the VL701 so that distorted point of the waveform becomes 1/3 from the bottom as shown.

**10. ENV. DET (IHO)**  
 (This adjustment should be performed in the "TEST mode".)  
 To set the VCR to the TEST MODE, press and hold both the "POWER" and "EJECT" button on the front panel, then plug in the AC power cord. The TEST MODE can be cancelled by disconnecting the AC power cord, or simply by pressing the SYSTEM RESET button.  
 1. Record PAL color bar signal on a normal type blank tape and then play it back.  
 2. Observe the number which displayed on the minute part of the FL display.  
 3. Adjust the VR3 so that the number displayed on the FL display becomes 88.